Pharmacology

Handwritten Note

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Name:		
Subject:	Pharmacology	



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PHARMACOLOGY Date: / /
· Sympathelic System Neurotransmitter - Nor-Epinephrine Thoraco lumbar outflow (T, to L3)
Parasimon de la
· Parasympathelic System Neurotransmitter - Acetyl choline > Cranio-sacral outflow (111,1V,1X,X,S2,S3,S4)
\rightarrow Cranio - saeral outflow (111, 1V, 1x, x, S ₂ , S ₃ , S ₄)
Chalianai
Cholinergic drug:
Choline uplake - Na+-choline Symport > 1st slep > Rale limiting slep in synthesis of Ach. # Source of Choline > Service
→ 1st slep → Rate limiting slep in synthesis of Ach.
Source of choline -> Serine!
cholin - choline
Sodiun Acelyl coA
Ach
Vesicular uptake
Ca2+ channel (Ach) of Ach
with the help of (ca2+) Vesicle
Ca ²⁺ Ach Release
Choline Ach
esterase
TON WITH
Muscarinic Nicotinic
Irue cholinesterase -> +nt at synapse.
Pseudocholinesterase -> +nt in plasma.
Cholinergic drug metabolised by > Pseudocholinesterase.
Choline uptake inhibited by -> Hemicholinium.
Vesicular uptake up of Ach blocked by - Vesamicol.
Release of Ach modulated by & Blocked by - Bolulinum loxin
Stimulated by - Spide 1
Defect in Ca ²⁺ Channel – Lambert Eaton Syndrome.
O Comme Caron Syndrome.

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(1)

Date: Defect is Ca2+ Channel Presynaptically.

Page No. Date: / /
Extra point:
- Band Phane II have ali
D'Conversion of NA unto Adrenaline by Melhylalion - Eg. of Phase II reaction. (2) Conversion of Histamine unto melhyl histamine by Melhylalion.
Melhelalion.
Mast cell secreté histamine.
Maslöcylösi's (Histamine releasing Jumour)
· · · · · · · · · · · · · · · · · · ·
urinary estimation of Methyl histamine - Useful for
diagnosis of Maslocytosis.
Urinary estimation of VMA (Vanily) Mandelic Acid) - Useful for diagnosis of Pheochromocytoma
Useful for diagnosis of Pheochromocytoma.
Joxuns in ANS:
BOTULINIUM TOXIN - A LO G Subtype
Clinical uses of Bolulianum A loxun:
*** Blepharospasur
2 Strabisius
3) Wrinkle (in forhead corrected)
4 Cosmelics
Clinical uses of Bolilinium Bloxin:
- Used as Muscle relaxant
4 Cervical dyslonia (Painful muscle spasm)
UNABOTULINUM TOXIN
- Derivative of Botilinum A loxin.
Useful for - W Prophylaxis of Chronic Migraine.
Useful for — ① Prophylaxis of Chronic Migraine. ② Reloxation of Detrussor muscle — Given intra vesically.
· · · · · · · · · · · · · · · · · · ·
Causing Referblion of wrine So useful for t/t of overaclive bladder.
so useful for yt of everaline sources.

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Date:	1	1	

Alpha Bungarolóxia:
- Component of Venous of Banded Krait
Alpha Bungarolöxin: - Component of Venous of Banded Krait Nature of toxin — Antagonistic aclien at Nm receptor.
Saxi toxin 7 Bolh released by Dinoflagellates (Algae) Jetradoxin - 1
Telsa doxum = V
This loxur infect a fish (Shell fish)
Ingested by human - cause Na+ Channel
blockage causing Muscle Paralysi's.
Ingested by human — Cause Na+Chaunel blockage, causing Muscle Paralysis. So, called Paralylic Shell fish poisoning.
Negationing & Alzobine
T/t of α-Bungarolóxin: Neostignuire & Altropine
1 Ach in synapse — We need only nicolinic action, Mus carinic Nicolinic So, muscarinic blocker given. 10
Mus carinic Nicolitic Sp, muscarinic blocker given.
↑ ⊖
Atropine
Cholino ceptors.
Muscarinic Ni cotinic
- M1, M2, M3, M4, M5 NM, NN
- All nuscarinic are - All nicotinic are ligand
G-coupled proletin receptor. gated.
- Acling via
Adenyl cyclose palkway Phospholipase palkway Gs > Stunulatory Qi → Juhibitory DAG.
65 > Stimulatory 2 imp. 2nd Messenger 1P3
Adenyl cyclose palkway Phospholipase palkway $\langle G_s \Rightarrow Slunulalory \qquad 2 inp. 2nd Messenger \langle 1P_3 \rangle$ $G_i \Rightarrow Inhibitory \qquad DAG.$

3	••
0	Page No.
<u> </u>	Adenyl cyclase falhway:
a -	Adenyl cyclase Palhway: 2nd Messenger — CAMP. M1, M3 & Ms follow Gq palhway M2 & M4 follow Gi parhway.
-	M1, M3 & MS follow Gg ballivay
<u>_</u>	M2 & M4 follow Gi pathway.
)	
3 –	Mus carinic Receptors:
<i>></i> -	M1: docalion - Stomach
<u> </u>	Action - Releasing HCl
d -	Overstinulation of M1 - Gastrilis
)) -	Selective M1 agonist - Oxotremorine.
) } -	Selective M1 agonist - Oxotremorine. \$\square \mathcal{G} = \mathcal{G} \text{astrilis}\$
	For Gastric ulcer — Block M1.
0 - 2 -	Selective M1 autagonist / PIRENZEPINE 7 For t/t of TELENZEPINE gastric ucer.
6 – m –	TELENZEPINE gastric ulcer.
•	
ø –	-M2: Localed on Myocardium
Ø –	> Maximally in AV node.
()	M2: Located on Myocardium > Maximally in AV node. Action: Stimulation of M2 causes reduction in conduction Velocity.
& _	Velocity.
© _	Causing Bradycardia
(b _	as Vague (X) fibre is Parasympathēlic fibre > act on M2 receptor -> Causes Bradycardia.
0	> act on M2 receptor -> Causes Bradycardia.
0 _	# Athelelic person -> High Vagal lone
<u></u>	# Vagourinelic drug -> Causing Brady cardia
(b	# Vagourinelië drug -> Causing Brady cardia Use of M2 agomst -> SVT (Supra ventricular Tachycardia).
(b)	
(9	Selective M2 agonist - METHACHOLINE (98-99% - M2
(9	1-2% - M1.M3
6	Selective M2 antagonist - METHOCTRAMINE
) _	TRIPITRAMINE
9	# Methacholine challange lest -> D of Asthma.
<u> </u>	# Methacholine challange test -> D of Asthma. Cause bronchoconstriction

Digoriu, = Vagominelie property
- Anti-arrythmic
Atrial Fibrillation
Abrial Flutter.
- Inhibit Na+- K+ ATPase test.
- Accumulate intracellular Ca2+ (1 Ca2+)
- 1 Force of contraction
- Useful for t/t of law output CCF.
Muscarinic Receptors: M3 Receptor - Localion:
Ma Receptor - Localion:
Smooth muscle - Blood vessel (endothelium)
Eye
Endocrine glands.
Sursolt musele
Vascular Visceral
- Endo/helium - M3 anlagonist -(COPD/B4) · Spratropium browide
Hypotensian We don't use Atropine 6003
- Selectivity
· Don't interfere muco ciliary
nusele.
- Intestine & Bladder
- Pro-Kinetie aclien
Ma agonist: Uses
· Coustifation
· Post of paralytic
· Post of paralytic . ileus, urinary retention.

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Selective M3 agonist acting on Intestine & Bladder → BETHANECHOL
-> BETHANECHOL
Selective M3 agonist acting on G17 & Bladder
- DARIFENACIN
- SOLIFENACIN
- useful for t/t of dearrhoea &
diarrhoeal dominant IBS.
Over acling bladder.
Selective M3 agonist acting only on Bladder
- Vesico Selective M3 agonist.
· Oxybulynin
· Haronate
- ToHerodine
· Trospium Chloride.
Extra information on bladder:
B3 Aclion - Relax delrusor-causing urinary Retention
MIRABEGRON (B3 agonist)
Use − Overaclive bladder.
Localian of B3 mostly in adipose lissue
Localian of B3 mostly en adipose lessue · SIBUTRAMINE (B3 agomist)
- Adipolysis (wt. loss)
- 91 is withdrawn - Ecoz Cardiotoxie.
Nocturnal enuresis
- Imipramine (TCA)
· Ante cholenergie

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DOC: Desmopressin
DOC: Desmopressin V2 analogue - Vasopressin
Stress incontenance:
tft → Duloxeline
· 1 wellial lone
· also useful for t/t
- Chronic neuropathy pain
- Chronic neuropathy pain - Fibromyalgia.
- It is SNR1 (Anti-depressants)
√
eg: Duloxeline
Venlafazine (SJE - Sustained HTKN)
Milnaciprau
Leva-milracipram
Vilazodone J Newer drug.
Vortionetine J
M3 on Eye:
U
Sphincler muscle Stimulation of M3 Constriction — Constriction of pupil
Sphincler muscle Strumlation of M3 Constriction of pupil (Miòsis)
(Miòsis)
Radial nuocle Stimulation of d: Dilator - Mydriasis L. On Radial nuocle
Dilator - Mydriasis
M3 agonist acting on eyes
Pilocarpine
Ma agonist acting on eyes Priocarpine Ecothiophate Or an abharbarus Comp ^q
- Organophosphorus Comp ^q Irreversible cholinesterase inhibitor
greversible continued

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- Phenylephrine (Adrenergic agonist)
· Phenylephrine
(Adrenergic agonist)
Adrenergic drugs - Only Modriasis
Adrenergic drugs - Only Mydriasis
Anticholinergic drugs - Mydriasis + Cycloplegia
Anticholinergic drugs — Mødréasis + Cycloplegia (loss of légat reflex)
B-blocker don't aller pupil size
B-blocker don't aller pupil Size Timolol - Use in 4t of Glaucoma.
Occulomolor Nerve supplies constrictor muscle.
Occulomolor Nerve supplies constrictor muscle. (Circular muscle).
Causes Mioris.
Injury - Mydriasis
Even after CN III nerve enjury if we use pilocarpine we will get missis, as receptors are infact.
we will get missis, as receptors are intact.
M3 receptor agonist - Useful for glaucoma.
Pilocarpine - Useful for glaucome by promoting
Pilocarpine - Useful for glaucoure by promoting drainage
Ecothiophate - YE - Cataract.
Mydriatic anticholinergie:
Mydriatic anticholinergie: Atropine (longest acling = lovk) Homatopine
Homatopine
Cyclopentolate
Cyclopentolate (M/c) Iropicamide (Fastigest but Shortest acling = 3-6hm)
0
> GI − Glaucoma.

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Only for fundus exam - My driasis enough
Phenylephrine prefferred
Phenyl ephrine prefferred OR
Tropicamide.
Essas of Refraction:
Error of Refraction: Mydriasis & Cycloplegia DOC-Iropicamide
MC-Tropicamide
· In child (Syr
· In child < Syr · Atropine Dintment 140
Ma ou exposing clands:
M3 on exocrive glands: M3 location - Salivary gland
Lacrinal gland
Lacrinial gland
Sweat gland.
14 samist : Pilagobing
M3 agonist: Pilocapine Cevimeline
Certification
1: Pilocaphine used
Sjogren Syndrome – Pilocarpine used Xerostomia
X ero stoile a
" A it die a la Padio protective
Amifortine - Radio protective
1 - 10 date for A: 1/ali
Cospiana Nephrotoxicity.
Antidole for Cisplalin L> S/E - Nephrotoxicity.
Padis sition = Campilabine Melso nidazole.
H ramo seniezer - genicitation, morribicia
Radio sentizer — Gemcitabine, Melro nidazole. Radiation Recall — Dactus myein, Doxorubicin —Anticancer antibodies
· L.,

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Gencitabrire:	
Pyramidine anti-melabolis	te
Pyramidine anti-melabolis DOC - Pancreatic Cance	١.
•	
# Atropine - GI in hyper/hermia	•
Nicolinic Receptors:	
Nicolinic Receptors:	
Nm:	
N = Nicotenic, m = Skeletal mu	scle
① Activation of Nm causes opening of . Entry of Ca2+ causes contraction (Muscle de	Na ⁺ & Ca ²⁺ Channel.
Entry of Ca2+ causes contraction	v of muscle.
(Muscle de	polarisaleon)
Ach - 1 muscle power	
Ach — 1 muscle power So, Cholinergic drugs used for Ht	for Myas /henia
· · · · · · · · · · · · · · · · · · ·	gravis.
	· · · · · · · · · · · · · · · · · · ·
Skeletal muscle Relaxation (SMR):	
a - Tubocurarine = Competitu	re antagonist.
d-Tubocurarine = Competition Non depolarising SMA	₹
for reversal – Neostignius	
C Afropine	
Newer drug - Sugammadex	
	2 0
Useful for Reversal of R	ocuroneum-&
	lecuronium.
· Similar to Neastignia	e

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Non-deholopizina SMR
Non-depolarizing SMR
Steroidal Non-Steroidal
Paucronium Rocuronium Rapa curonium Vecuronium
Paucronium Rocuroneum Rapa curoneum Vecuronium
Anticholinergic
aclion
Or, AntiVagal.
Glycopyrolate: Anticholinergic agent
Glycopyrolate: Anticholinergic agent Useful for pre anaesthelic medicalion to control Secretion:
Secretion -
It is quaternary compt - lipid insoluble
So No CNS sode effect. So it es useful
It is quaternary compt — lipid insoluble. So, NO CNS side effect. So it is useful uistead of Atropine.
0 11
Population :
Rocuronium:
- fastest acting SMR
- Alternate to Succent choline (Sch) for Iracheal
unfubation
- least his famme releasing property.
- Least his famine refeasing property. - Severe pain during injection
, , , , , , , , , , , , , , , , , , , ,
Rapacuroni un:
- Cause Severe Bronchospasm.
Vecuronicum:
- Preferred in cardiac pts.

		—	e: / /
	Paraul in		
	Benzyl iso)	
700000000000000000000000000000000000000			of Tuborius
<u>Doxacuri uu</u>	Mivaeuriuu	Alracusuuu	of- Tubocurarine
· longest acting (120min)	· Shorfest acting	· Undergoes	· Max " Histamene
· Most potent·	(15-21 min)	Hoffman's	Rejeasing
	· Vseful for day	degradation	· Adverse effect
·	care.Sx.	(Self metabolism)	- Brouchospaom
		· ·	- Hypotension.
	Gantacurium	metabolism cont	
	(5-10 min)	lever & kidney.	
	√	They do not	
	Newer drug.	need easywe	
	0	for degradation	
	-	- Safe in Hepatic/	,
		Renal failure	
	-	- Produce by pro	
		V //	
		Lauganosina	
,		Causes - Seizu	re)
	4		•
# Cis Atracuri u	u — Less laud	anosine	
	tess secr	eting his tamine	·
		0	
SMR having le	ess histamine o	releasing proper	ty
	- Cis. Atr - Rocuro	zeurium'	<i>V</i>
	- Rocuro	niuu ·	
	, 000;00		
•	1.5		
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		y	

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Depolarising SMR:
Succinct choline (Seh):
Structurally & functionally - similar to Ach.
Depolarising SMR: Succingle Choline (Seh): Structurally & functionally = similar to Ach-
S/E - Muscle fasciculation Post op : muscle pain
· Shortest acling (3-5 min) rapidly undergo wetabolism by Pseudocholine esterase.
sold was wetabolism by Prendocheline
esterase.
Some people have Atypical Pseudocholine esterase
1 action < 5 min
lead to Sch Apusea
T/t - Fresh blood transfusion book blasma
7/t - Fresh blood transfusion begs blood plasma is rich in pseudocholine esterase.
Dubucaine number:
Useful to access whether the pt. have atypical pseudocholine strase or normal.
Caine - Local anesthétic agent.
Caine - Local anesthétic agent. 80% - hydrolysis - Normal Pseudocholineslerase. <20% - hydrolysis - Atypical "
<20% - hudrolyers - Atupical
July 19
Adverse drug effect of Sch:
Adverse drug effect of Sch: - Hyperkalelnia (Burus), newe wijury, crush wijury,
- Malignant huber ther mia
- Malignant hyper/hermia - 1 Intra ocular/ gastric pressure
those who are having genetic abnormality à
Those who are having genefic abnormality c Ry anadine receptor.
My months.

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NN:
Localion: Autonomic ganglia (Most)
Localion: Autonomic ganglia (Most) Adrenal medulla
CNS
Autonomic ganglia-
Sympathetic:
Pre ganglionic (Ach NN) Post-ganglionic NE
Ganglia
Ganglionic Blockers (NN)
Parasympa/hélic: - Hexamelhonium - Trime/haphan
(Saroking Control)
1 1 V - 1 1 - V - 1 W - W - W - W - W - W - W - W - W -
Ach. controlled hypotension.
the state of the s
Antismoking drugs:
First line drug (therapy)
· Varenicline (& B2 nicotinic agonist) - Suicidal thought
· Nicotine (patch, enhaler, lozenges, Chewing gum)
· Bupropion - NBRI (Noreprinephrine Dopanine Reuptake Inhibiti,
Antidepressant Adverse drug seach
Weight Loss —Seizure. ADHD (off label)
Second line therapy: Clonédine (d2 agonist)
Nortriptyline (TCA)

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Miscellaneous:
Jopinanale - Antiepileptic
ADR - Weight Coss, Nephrolithiasis.
Mecanylamine
Limonabant: Inverse agonist/ Antagonist of Canabinoid
Rimonabant: Inverse agonist/Antagonist of Cannabinoid 1 receptor.
- Weight Loss - Prevente craving of alcohol.
- Prevente craving of alcohol.
ADR - Psychiatry problems (withdraw)
ADHD (Attention deficit hyperactivity disorder): Drug used - Amphetamine
Drug used - Amphetamine
Causes - Cardio lo xic
Addiction
Appetite Suppressant. (Failure of growth)
(Failure of growth)
First line druge:
- Methyl phenydate (First Choice) - Atomoxetine
Ritalinic acid (Metabolite).
Other drugs:
Per Pemoline (Hepatotoxic)
Modafinil - Use: Narcolepsy
Shift worker
Obstructive Sleep aprica.
ADHD. (FDA - Unapproved)

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Newer drug under Narcolepsy: H3 civerse agonist
Hz inverse agonist
V
Pitolisant (PR) Tiprolisant Narcolepsy (Orphan drug Stalus)
Narcolepsy (Orphan drug stalus)
Drug useful for the of obesity:
Drug useful for t/t of obesity: - Sibultanine (B3 agorist) - Cardio toxic (Withdraw,
- Orlistal (lipase in hibitor) - Steaforhoea
- Olestra (Sucrose polyester) - cooking medium
- Olestra (Sucrose polyester) - cooking medium Rimonabant (Canabinoid 1 antagonist) - Wilhdran
- leptin (Endogenous sliving peptède)
Combination therapy:
Combination therapy: Bupropion + Nallrexone (opoid antagonist)
- Company , values of
Bubrobien + Zonisamide (Antiepileptic)
Bupropien + Zonisamide (Antiepileptic)
Phentaramine + Topiramale (Antiepileptic)
Phentaramine + Topiramale (Antiepileptic) (Sympathetic Stimulant
Apetite Suppressant)
- The state of the
Newer drug: SHTRC agonist - LOR CASERIN
SJE - Serotonin Syndrome
GID-1 -> I TRAGUTINE
GLP-1 -> LIRAGUTIDE ENA CHARGED days for obesity.
FDA approved drug for obesity.
Extra point: Antiepileptic causing wt. Coes
· Tobir amate
· Topiramate · Zonisami de
. Felbamate

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Antiepileptic causing Wt. gain:
Sodium Valporate
Antiepileptic causing Wt. gain: Sodium Valporate Gabapentin
Felbamale (Hepatic failure (YE) Aplaslic Anemia
Type 2 DM c obesity — Ist line drug - Metformin Non-diabelic c obesity - No Metformin.
Antidiabelic Causing: Weight gain: - Insulin, Insulin secretagogues: - Sulfonyl ureas, uneglinitides, Thiozolindiadiones.
Weight loss - Praulintède, GCP-1 agonist, SGCT-2 inhibit
Weight neutral - Metformin, DPP4 inhibitors.

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OPC'e = Organophosphorus compa.

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ANTI CHOLINESTERASE Irreversible Reversible Carbamale. Carbamales Acridene **OPCS** → Physostiguene → Dytios > Tacrine →Carbaryl → Echothiopate (Natural origin, Alkaloid (plant) Hepatofoxic \rightarrow Parathiew $\dot{}$ → Malalhion Insecticide So, not used en Alzheiwers → Diazmon Jabun 7 Nerve gas DOC: Atropine Sarin (Belladoua Soman \rightarrow Neostiguune Majathion - Pediculosis (lice) cufestations · Use in Glaucoma (Water soluble) SJE Cataract No CNS effect. Neo-direct action on NM receptor Sarin (3-5 hrs) (Zunia) - Fastest acting Edro - Anionic site binding · Rapid disociation t/t - Atropine + Pralidoxume In convulsion - Diazepaun uyeothenia gravis. (Jensilou test or, Ameliorative test) - Provocative test (done by injecting d- Tubocurarine

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Rivastiguine Juseful for t/t	
Rivastiguine useful for t/t Donapezil of Alzheimer's ds Galantamine I	
Galantamine 1	
deficiency of Ach.	
DOPC's poisoning:	
Parathion, Malalhion, Di azenon	
Cholines le rase inhibitors	
(Ireversible)	
1st line DOC: Altopine (Muscaranic B	slocker)
✓ /	
Dose & depends upon Sign & Symplo	one of Alrapinesalion:
· 4R>100/min	0 /
· Dubil Gian	
• Pulmonary Secretion • Secretion	•
· Secretion	
Max m upto - 200 mg.	
Oximes:	•
- Choline Esterase esti reactivals	भरे ·
- Only used for the OPC's posionie	g
- Ouly used for the OPC's poulonie not carbamate	poisoning.
	•
eg: Pralidoxume (1-2g; slow i Obidoxume (more potent) Diacetyl mono oxume (H More CA	.v., 15-30 min)
- Obidoxime (more potent)	
· Diacetyl mono oxime (4	ighly lifted Soluble)
→ More CA	's action
S/E - HTN	
SfE - HTN -> T/E - Phentolamine (No	m selective & Blonk

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Myasthenia Gravis (MG):
Amelioralive test Provocalive test
Provocalive, test
7,200000000
Desirilate toot - Note Ach Receiptor Redigious
Definitive Lest -> Anti Ach Receptor Radio i unumo Assay.
(
Confirmatory → Single fibre Electro Myography. (SF-EMG)
- (SF - EMG)
7irst line drug – Neostiguine Pyridos lignine
Pyridos liquine
<i>V U</i>
Olhers - Corlieosteroids 7
?hy weclowy ?o remove Plasmapheresis autoantibody.
Ty la.
Duran and the same of the same
Other ein un un suppresant - Azalhioprine Cyclosporeire.
Cyclosporene.
Monoclonal antibody - Rituriuab
Parget CD20.
Remission/Exacerbalion
Rapid Recovery - Planuabheresis
Rapid Recovery — Plasmapheresis 1v Ig.
Musicia - 012 in ADC
Quenine — GI in MG — 9+ is SMR — Used in Nocturnal leg Cramps.
Hood in Nachanal lea Chambe
- used in system in say compar.

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@	- Avoid Aminoglycoside en MG.
B	
3	# MEMANTINE - NMDA Blocker
6 —	useful for moderate to severe Alzhiemerids.
6 —	
@ —	# Drug useful in cervical ripening - VALATHAMATE
@ —	<u> </u>
<u> </u>	Anticholinergie drug Suwolt wuscle relaxant.
<u> </u>	Sucolt wuscle relaxant.
<u> </u>	
a —	# Diphenoxylale - opioid
~	Anti dirrhoeal
(b)	Addiction
® —	Atropine V addiction of Diphenoxylate
©	, , , ,
©	# Glycopyrolale - Auticholinergic
®	Preanesthetic
®	Qualernary Compd.
(b)	# Scopolanine - Also K/A Hyoscine - CNS depressant (Sedation)
(b)	Used en molion sickness.
(b)	DOC: Hyosine -> Narco Analysis
®	
®	# 1st Gen. (4)+M): Promelhazine
(
<u></u>	In treating In Motion breating EPS (Extra pyramidal Sympton)
®	Allergic condn Sickness
®	
@	# For Sea Sickness — Same t/t.
<u>@</u>	# For Sea Sickness — Same t/t. L. Meclizine — 1st gen long acting Aosti-histamine.
<u></u>	
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For Meunlain Sickness: Acelazolamide (Carbonic Anhydrase Inhibitor)
(Carbonic Anhydrase Inhibitor)
Moraing Sickness: Donylamine & Vit B6
<i>√</i>
antiemelie Vitamin
Vit B6 (In Pyridoxine):
- Anti-emelic
Vit B6 (In Pyridoxine): - Anti-emelic - Controls intra ulerine Seizure.
Stimulant of dopa decarbonylase C/I - Levodopa
C/I - Levodopa
Vit-B6 should not be given è levodopa.
Vit B6 defonitely given c Anti TB drug (Isoniaged)
To correct peripheral neuropathy.
Antidote for Vit B6 - 4 deoxy pyridoxine
Folic acid -
Prophytaclie - 400 µg daily in pregnancy. Previous H/o Neural tube defect - 5 µg/day.
Previous H/o Neural tube defect - 5 mg/day.

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Drug having Anticholinergic aclively: • TCA's
- Amilriphyline
- Amilriphyline - Imipramine — Noclurial enuresis
- Duripramine - Noclumal enuresis DOC: Desmopressin
· Anti Psycholics
- Inioridazone
- Closapine
0/
• SMR
- Pancuronium.
- Gallamine
· Mass la Anti arruthuic drugs.
- Class Ia Anti arrythmic drugs Quinidine
- Procaciacuide
- Disopyramide (Highest anti-cholineegic property).
· 1st H, Blocker
- Promethazine
• Amantidine PM eperidine (Pe/hidine) \$\inquare \text{ opoid analgesies}\$ \$\inquare \text{YI in MI pain}\$
Meseridine (Pethidine)
→ opoid analysies
> C/I in MI bain
Morphine is Used.

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ADRENERGIC DRUGS Synthesis, Storage, Release, Metabolism of NE: Tyrosine Tyrosine Hydroxylase Dopa Decarboxylase Dopamine MAO Dopamine B Hydroxylase COMT - NE RE-UPTAKE # Synthesis of NE -> Ouly in the vesicle:
Jyrosine TYR Tyrosine Hydroxylase DOPA DOPA Decarboxylase Dopamine MAO Dopamine NE RE-UPTAKE # Synthesis of NE -> Daly in the vesicle.
Syulhesis of NE -> Daly in the vexicle.
Departing MAO Departing B-Hydroxytace NE RE-UPTAKE # Synthesis of NE -> Only in the vexicle.
Synthesis of NE -> Only in the vesicle.
Synthesis of NE -> Only in the vesicle.
Synthesis of NE -> Duly in the vesicle.
Synthesis of NE -> Duly in the vesicle.
0.171.10
Catécholanine - Dopanine
NE Epinephrine
Epinephrine
Monoaurines - Dopaurine
NÉ
Seralonin.
For metabolism of NE - MAD COMT

Page No. Date: / /
- Even though NE undergoes metabolisin by MAO & COMT, enzymalic degradation is not involved in termination.
termination.
- NE action is leriumated by Re-uptake.
- Rate limiting enzyme of Synthesis of NE - Tyrosine Hydroxylase
Hydroxylase.
- Drug inhibiling Jyrosine hydroxylase — Alpha methyl para thyrosine (METYROSENE)
para thyrosene
(METYROSENE)
- Dopa decarboxylase inhibitor - Carbidopa Benserazide.
0
- Reserptive → Anti HTN agent Vasicular uptake inhibitor. - YE → Sucidal depression.
Varicular ustake inhibitor.
- SE → Sucidal depression.
- B-hydroxylase blocker - Disulfiram
- B-hydroxylase blocker — Disulfiram (Used in alcoholism deaddiction)
Ethyl alcohol
√ Alcohol dehydrogenase
Acetaldehyde
Ethyl alcohol J. Alcohol dehydrogenase Acetaldehyde J. Acetaldehyde dehydrogenase © Disulfiram. Acetic Acid
Acetic Acid _

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New drug - DROXIDOPA
New drug - DROXIDOPA (Prodrug of NE)
(Prodrug of NE) - Used in Neurogenic Orlho static hypotension - Hemodialysis induced hypotension
- Hemodialysis induced hypotension.
BRETYLIUM: Class III drug K+- Channel blocker. Also called Chewical defibrilator.
K+- Channel blocker.
Also called Chamical detibrilator.
Release of NE is blocked by - Bretylium
Release of NE is blocked by - Bretylum Guanathidine
NE Ro-untake inhibitor - CNDI NIDRI TCA COCAUMO.
NE Re-uptake unhibitor - SNRI, NDRI, TCA, Cocaine.
Coccins - Due & ouly anosthelis causing 47N
The Course winds and the sales on of the
Cocaine → One & only anesthelic causing HTN. — # Causes inydriasis by acting on d, on the radial nuscle
rudin hillsell.
Adrenergic Receptor: < d
β
(Henry Ahlguist)
N D 11 Post-surabtically (Incolin)
N= receptor: 2 / / / / / / / / / / / / / / / / / /
$\alpha_2 \rightarrow \text{pre-synaptically}$
> Inhibition of release of NE. auto receptor for NE
→ auto receptor for NE
<i>√</i>
α_2 agonist:
eg: Clonidine Centrally acting Anti HTN
eg: Clonidine Centrally acting Anti HTN Methyldopa Guarafacine
Guarafacine
V

Page No.
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Guana benz
Mononidine
Rilmonidine
SE- [Apraclonidine Vsetul in Glaucoma.
S/E- Maraclonidine Useful in Glaucoma. Drowzinest Brimonidine Mon- decreases Aqueous Secretion Not safe in Control of the Co
Not sage in Children. Jizanidine -> Centrally acting SMR.
Dexme de to midine -> Used as Sedalion (ICUpts) &
Pre-aneshēlic medicalion
Melhyldopa: DOC for t/t of HTN during pregnancy.
Hyperleusive Emergency:
Hyperlensive Emergency: Labetalol (B+d blocker) Hydralazure (K+chaunel Opener)
Hydralaguie (K+chaunel Opener)
4 Arlerio las dilalor.
Eclampsia — MgSO4.
Melhyldopa may cause hemolytic anemia to mother
Coombi test +ve
Drug avoided in pregnancy: ACE i / Renal & pulm ARB's agenesis) Sodium nitroprusside (Contain Cynide)
ARB's agenesis)
Sodium mitorpsusside
(contain Cunide)
JA.
Apraclonidine: Specific SIF - to lid lag.
Apraclonidine: Specific GE - to lid lag. Bri monidine: SJE - Anterior uveilis.

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α₂ aulagonists: 1 NE release
Yohimbine - Used in Hypotension & Sexual stimula Idazoxan
Yo himbene — Used en Hypotenseon & Sexual stimula Idazoxan
O .
α_{l} :
doealion - Post synaptically.
1) de seen on vascular susoll-nuscle.
αι: doealion - Poet synaptically. ① α, seen on vascular smooth nuscle. Action → Vaso constriction
Of agonists: Based on vascular action Useful en t/t of Hypotension Nasal Congestion.
Based on vascular action
Useful en t/t of Hypotension
Nasal congestion.
Science of the for the for the forther
Methoxamine
Mephenteramine
Methoxamine Mephenteramine Midodrine
Selective a, aganist for tet for Nasal congestion:
Cause Atrophic Maphagoline
Rhinites Oxymetezoline
(Rhinitis medicamentora) L Xylo metazoline.
d, Receptor - Radial muscle of ires -> Mydriasis
> Phenylephrine
d, Receptor seen in internal wrethral sphincfer
4 Causes ephisiter constriction
4) Refertion of usine.
d, blocker used in BPH

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6	#	Vesico Ureleric junction d, Receptor +nt.
0 _		
6	#	d, blocker Useful in t/t of - lower ureleric calculi
<u>_</u>		0 1 0
@	#	of seen on Vas deferens of penis.
@_		de seen on Vas deferens of penis. Action -> Ejaculation.
@		
@ —	#	Y∈ of d, Blocker — Impairment of Ejaculalian.
@ —	#	Disatte action Compatibility
® —		Directly acting Sympathomeinelic d, p agonists
(b —	4	Advanding MA.
6 —	·	Ad revalue, NA.
0-		Indicate contate contate
o —		The same of Ash an Mariala & Causal rale are
o —		Indirectly acting sympa/homemetro: Tyramine -> Act on vesicle -> Causer release of NE.
v —		
<u> </u>		Causes depletion of storage of NE
®		Jacheshulaxis -> Rapid tolerance
()		Jachyphylaxis → Rapid tolerance
®	#	MAO inhibitors taking & Jyramine containing food (cheese,
	/	MAO inhibitors taking & Iyramine containing food (cheese, wrine, bread) causes HTN, it is called Cheese reach.
4		$\int_{\mathcal{L}}$
		DOC for t/t of HTN due to cheese reach: Phentolamine (non-selective d blocke)
(3)		(non-selective d blocke
	#	Mixed action Sympathominetic - EPHEDRINE
&		
<u></u>		causing hypotension
		Spinal anesthesia.
@		Safe in pregnancy.
		V / V
1		

Selective d, Blocker:
eg: Prazosin (PDE inhibilion property). Doxazosin \ Apoptotic aclion on Prostate. Jerazosin
Doxazosin \ Apoptotic aclien on Prostate.
Jerazosin /
0
diAblocker Silodosin Mainly Lansulosin acting on bladder.
J. Alfulosin
mainly Laursulosin
acting on bladder.
Indoramines water in Huperlemouse Emergency.
Indoranine Useful in Hyperlensive Emergency. Urapidil.
0300000
PRAZOSIN:
- Vasodilalion → on smooth muscle.
Usex - HTN
PVD
CCF
Scorpian Bile
SJE - Postural hypotension
(1st dose hypotension) - Impairment of ejaculation. Selection of Prazosin as Anti-HTN: D. HTN E. duribsdemia
- Supairment at giaculation.
Coloclina of Prosessin as Anti-HTN:
D un à dulibédemia
① HTN Ē dyslipsdemia ② HTN Ē elderly male Ē BPH. ③ Can be used in diabelies Ē HTN.
3 Can be used in diabolity & HTN.
o can be well in converies o 1777
HTN c dyslipidemia: Chaice - Prazosin Anti HTN avoided - Non-selective B-blocker Thiazide ***** divinetics
Chain - Proposin
Auti HTM worlded - Non-selective B-blocker
This aride was diviselies
Grand Branch

0	Page No.
6	Date: / /
6	No problem $\bar{c} \rightarrow CCB$, ACEi, ARB, Clanidine.
0	
0	HTN C diabeles:
0	Choice -> ACEi = ARB > CCB
0	Unfavourable (avoid) -> B-blocker
iè _	Diurelics.
3 -	
6 –	Anti-HTN causing Ereclile dystunction — Highest risk — Druselics (Thazedu)
7 -	Highest risk - Druselies (Thiazedus)
* -	High risk - B-blocker (Atendol, Carvedilol,
(36 –	
⊕ -	# In BPH -> Static obstruction is overcome by
® -	Finesleride + Jamsulosine.
® -	(Rapid Benefit)
	It takes 3-6 months for action.
O -	Jansulosine overcoules dynamic obstruction
O –	
® -	# Pt. on Tamouline may cause risk of floppy iris
(1)	syndrome -> going for cataract.
<u> </u>	
_	· · · · · · · · · · · · · · · · · · ·
<u></u>	
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8 _	
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® _	
® _	
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(P)

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(b)

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Non-selective &-plocker:
Issayorsible - Phenoxy benzamine
Irreversible - Phenoxy benzamme
O villa Plantia Phantalania.
Reversible - Jolagoline, Phentolannie.
PHENOXYBENZAMINE:
Definitive Cherapy for t/t of HTN in Pheochromocyfor - Phenoxy benzamine.
- Phenoxy benzamine.
Con and 12 11 in with at anothing 11741 during
For controlling intra-operative HTN during pheochromocytoma Sx — i.v. Phentolamine i.v. Nitroprusside.
pheochroniocytoma & - e.v. Phentolanune
i.v. Nrtroprusside.
Don't use Propanolol as a 1st line drug for t/t HTN due to Pheochromocytoma.
HTN due to Pheochromocytoma.
the In Phochromogentoma Su - Donos and Halothane is C/T
In Phechromocytoma Sx - Day and Halothane is YI
sensitize the unjocardium for catecholamine
for catecholainine
<i>\</i>
Causes MI.
Phentolamine:
Use - DOC - for t/t of Clonidine withdrawl HTN
DOC for tit of HTN due to cheeze reach.
A =1/ . // . \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Drune induced HTN.
Useful for He of Erectile dysfunction (injectable drug)

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PIPE Therapy (Pharmacologically induced penile erection):
Injectable drugs used for t/t of erectile dysfunch:
- Alprostadil (PGE1 analogue)
- Phentolamine
- Papaverine (Non-selecting PDE inhibitor).
B - Receptors → G-protein couple acting via
B-Receptors -> G-protein couple acting via Gs pathiway.
β_1 β_2 β_3
$B_{l} \Rightarrow$
Localion - Myocardium Kidney.
Kidney.
Aclien (Heart) -> 1 HR
1 Force of contraction 1 C.O.
In kidney -> Renin release.
Selective B, agonist:
Dobulatuine (Syn/hétic Catecholamine)
eg. of synthèlic Catecholamine
Desperaline → acting on β, β2β3 De peramine → D, , β2
3 Dobutanine $\rightarrow \beta_1 \ (t_{1/2} = 2 \text{ min})$
⊕ Fenoldopaun → D,
Dobulamine Used in -> Stress ECHO
D, receptor seen in Renal blood vessel -> Renal Vasodilation

B

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	:. Jenoldopam Used in -> iv infusion *HTN emergency & Renal unpairement.
	HTM european & Panal
	THE ENERGY C MEAN
	<u> impairement</u>
	Localión: Supolt muscle / Vascular
	B2: Localion: Smooth muscle Vascular Virceral.
	Stimulation of B2 -> Vasodilation.
	Stimulation of B2 -> Vasodilation.
	Visceral —
	Bronchial muscle -> Bronchodilation.
	•
	Be agonist useful for the of Bronchial Asthma:
	Salburamol Short acting
	Be agonist useful for the of Bronchial Asthma: Salburamol Short acting Terbutatine Useful for Acule asthma Columbial
	Security
	Jonnelrol) long acting
	Indacateral Useful for Chronic asthma
	Salbulamol:
	M/c GE - Tremors
	M/c YE - Iremors Palpitation.
	Uterus -> Action -> Uterine muscle relaxation.
	Toxolytice - Ritordine (FDA approved)
	Uterus -> Action -> Uterine muscle relaxation. Toxolytics - Ritordine (PDA approved) Isoxuprine
#	Br agonist Laving anabolic action - Clenbuterol.

Phoepholypase-Gg \(\alpha \tau 1] - G-Proletiv Couple receptor Adenyl cyclase-Gi \(\alpha 2 \)	v . 37
Adenyl cyclase - 41	Page No.
	Date: / /
B2 - Role an melabolisin	
B2 - Role an melabolisin	
Carbohydrale Potassium L	lipld
<u>Carbo hydrale Potassium L</u> - Hypergiyeemia - Hypokalemia - Re	Lipid ducing blood Cholesterol.
Hyper Kalemia:	
Mild → 5.5 to 6.5 m Eg/L	
Moderate -> 6.5 to 8.0 meg/L	
Moderate \rightarrow 6.5 to 8.0 meg/L Severe \rightarrow >8.0 m Eg/L	
for Rapid control of potasseum	in Hyperkalemia
(emergency) - Insulin + Glucose	infusion.
	0
For Hyperkalamia + ECG abnorm	malifies
For Hyperkalamia + ECG abnori — Calcum Gluconale	•
•	
β ₃ :	
B3: docalion: Adipose lissue	
Selective B3 agonist - SIBUTRAM.	INE
- lipolys	<i>દે</i> દ
- withde	ic raw due to Cardiotoxic
MIRABEGRON:	
-B3 agonist	
- Вз agonist - Relax delru sor	
Used in - Overaclive bladder.	
I which one of the following don't have sign	rificant alongania
dopaminergic activity-	V
A) Dopamine (D, B, &, C) Fenofdopa	un (D,)
I which one of the following don't have sign dopaminergic activity— A) Dopamine (D1, B1, A1) C) Fenofdopan B) Dobutamine (B1) D) Doperamin	ve (D, 1β2)

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D

The same of the Articles
Dopamine: has D,, B, d, aclien.
<2 mg/kg 2-5 5-10 flg/kg.
DOC for Cardiogenic Shock - Depamine.
Shock T/t Cardiogenic NE or Dopamine
Cardiogenic NÉ or Dopaume
Cardiogénic & Oléguria Dopamine.
Anaphylyclic Adrenaline Secondary d-blocker Adrenal insufficiency Steroids
Secondary d-blocker
Adrenal ensufficiency Steroids
要. Blood pressure:
BP = COX Peripheral resistance.
\checkmark
SBP DBP
Effect of Isoprenaline on BP: - Bi; B2, B3 action.
- Bi; B2, B3 aclion.
- No à aclien.
- 1 SBP; VDBP → Reflex Jachycardia
- Wide pulse pressure
$N\beta: d_1, d_2, \beta_1$
No & B2 action
1 SBP; 1 DBP -> Reflex bradycardia
100, 100
Advancelina on BP: acting on d. do B. B2
Adrenaline on BP: acting on d, dr B, Br

3	
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a	Biphasec response of
<u></u>	Adrenaline on BP.
<u> </u>	B Adrenaline cause initial 1BP
o _	& later & BP.
<i>B</i> _	# Dale's vasomolor reversal phenomenon:
<i>•</i> —	The Marie And Annual An
• — • —	If we give de blocker before
	d, Adrenaline adrenaline, adrenaline
3 —	Blocker a ack only on B2 causing
B —	Blocker B, acts only on Bz causing fall in BP.
® —	
B —	
B —	g. All are lipid insoluble B-blocker except?
6 –	A) Nadalol
B —	By Propanolol
6 –	C) Atenolol
•	D) Sotalal
•	
0	ditid soluble B- blocker - Propanolof (409hly soluble)
0	dipid soluble p-blocker - Propanolol (Highly soluble)
	· M/commencest drug used for prophylaxis
•	of migraine.
	- Pertormance anxietý
(6)	DOC - Essential tremor
\$	L. Akathesia
	Lipid insoluble B- Blocker - Nadalol (Moit langest acling
	Atenolol >40hm)
6	Long duration of action Sotatol
@	No hepatec metabolism
& _	Unsafe in Renal failure - Dose adjustment required.

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B-blocker
Non- relective B- blocker: 1st generation B-blocker
- Drug block bolf B1 & B2.
Non-selective B-blocker: 1st generation B-blocker - Drug block Bolh B, & B2. Cardioselective B-blocker: 2nd generation B-blocker (Predominately blocks B, blocker)
(Predominately blocks B, blocker)
-No selective Br blocker.
#· 3rd generalion B- blocker - B- blockers c additional properties.
properties.
Cardioselective B-blocker: Nebivolot (Most Cardioselective; Releases NO)
Nebivolol (Most Cardioselective; Releases NO)
Vasodilation
Befaxol - Useful in Glaucoma; Safe in asthmalic.
Befaxol - Useful in Glaucoma; Safe in asthmalic. Bisoprobol - Useful in CCF
Atenolol
Esmolol - Moet ultra short acting (~9 min), i.v., Emergency.
Acebutolol
Meloprolol - Useful in HTN, Angina, MI, CCF.
Celiprolol
3rd generalion B-blocker:
1) B-blocker having & blocking property -
3rd generalion B-blocker: (i) B-blocker having & blocking property— Labetalol — B&& blocker
- USE → HTN ewergency in pregnancy.
-S/E -> Postural hypotension, hepatotoxic-
Carbi
Carvedilol - p&a blocker
- Antioxidant
- USE → in CCP. → Bisoprolol
Metoprolol.

a) B-blocker having NO releasing property -
Nebivolol
D B-blocker having NO releasing properly— Nebivolol Nipradilol
(3) B- blocker having K+ Channel obening action -
3 B-blocker having K+ Channel opening action— Titisolol
, eccest
(A) B- blocker having K+ Chaunel Working property -
Sololol - Class III and ask high and
(9) B-blocker having K+ channel blocking properly— Sotalol — Class III antiarrhythinic group
- Only selective be blocker - Used for research purpose, not for therapeulic purpose.
- Used for research burbons not for therapeulic
- Osec for here the formation of the formation
Jourgos E.
B-blocker having highest unembr stabilizing
Nat about blocking brokent
Na+ channel blocking properly or local anesthelic action. → Propranolol.
Protection and a land
→ Propranoloc.
B-blocker having highest intrinsic sympathamimelic > Prindalol
→ Pindalol
β blocker having favourable effect on lipid profile → Pindalol.
→ Pindalol.
Antidote for B blocker prisoning - Glucagon.
·

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Uses of B-blockers: ① CNS - Performance, Anxiety Prophylanis - Megraine Ak as thesia Essential tremors. ② Eye - Glaucoma Sphocker - Jimolol Betaxolol Carteolol Lavo bunolol Metipranolol Systemic SJE of Jimolol - Bradycardia Heart block Bronchespasm # Betaxolol - Safe in asthma.
Essential fremors. (3) Eye - Glaucoma Sphocker - Jimolol Betaxolol Carteolol Lavo bunolol Metipranolol Systemic Ste of Jimolol - Bradycardia Heart block Bronchespasm
Essential fremors. (3) Eye - Glaucoma Specification Separate Secretion
Essential fremors. (3) Eye - Glaucoma Specification Separate Secretion
Essential fremors. (3) Eye - Glaucoma Specification Separate Secretion
(3) Eye - Glaucoma (4) B blocker - Jimolol (5) B blocker - Jimolol (6) Betaxolol (7) Carteolol (8) Levo bunolol (8) Metipranolol (9) Metipranolol (9) Metipranolol (1) Metipranolol (1) Metipranolol (1) Metipranolol (1) Metipranolol (1) Metipranolol (2) Metipranolol (3) Metipranolol (4) Metipranolol (5) Metipranolol (6) Metipranolol (7) Metipranolol (8) Metipranolol (9) Metipranolol (9
Systemic Ste of Timolol — Bradycardia Heart block Betaxolol Vaguous Carteolol Secretion Levo bunolol Metipranolol Metapranolol Bradycardia Heart block Brouchespasus
Systemic Ste of Timolol — Bradycardia Heart block Betaxolol Vaguous Carteolol Secretion Levo bunolol Meti pranolol Heart block Brouchespasur
Betaxolol Vaguoue Carteolol Secretion Lavo bunolol Metipranolol Systemic StE of Timolol - Bradycardia Heart block Bronchospasur
Carteolol Levo bunolol Metipranolol Systemic GE of Timolol - Bradycardia Heart block Bronchespasm
Levo burolol Metipranolol Sysfemic SJE of Jimolol — Bradycardia Heart block Bronchespasm
Systemic StE of Irmolol - Bradycardia Heart block Bronchespasm
Systemic SfE of Irmolol - Bradycardia Heart block Bronchespasur
Bronchespasur
Bronchespasur
Bronchespasur
Betaxolol - Safe in asthma.
-
1 1 0: 1 0: 1 0: 1 1 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1
Local GE of Jundal - Blepharo conjunctivities Nasolacrumal duct obstruction
Nasolacrimal auctobstructum
3) Thyroid - Hyperthyroidesen
propranolol inhibits peripheral conversion
$\theta \leftarrow \mathcal{T}_{a} \rightarrow \mathcal{T}_{c}$
- Symptom releifs.
4) CVS - HTN Arrhythmia Dissellien of aorta Angina CCF TOF
Angina ect TOF MI HOCM
Mi HOCM

A/C Joint Nalional committe quidelines
Ac Joint Nalional committe guidelines First line drugs used in the of HTN: - Thiazides
- Thiazides
- ACEC
- ARB
- CCB
No B blockers.
•
(5) Useful for Portal hyperlension (Prophytaxis)
Propanalol
DOC for t/t of bleeding due lo exophageal varices - OCTREOTIDE
- OCTREOTIDE
√
most potent vasoconstrictor
- controls bleeding
ucost potent vasoconstrictor - controls bleeding - Jerlipressin - V, agonist can be added.
DOC for prophylaxis - Propravolol, Nadalol.
· · · · · · · · · · · · · · · · · · ·

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Control acting drugs
Central acting drugs
GABA:
GLutamate
Glutamic acid decarboxylase.
Transmirale (GABA)
Trans
GABA GATI RE-UPTAKE
NE of time
MA MA
GABA A GABA B
Cl-channel Act by Gi
Melabolisin by - GABA transaminase.
•
Action of GABA: When GABA enters GABAA, cl-channel enters causing hyperpolarization.
enters causing hyperpolarization.
Druge acling via GABA A palhway
Benzodiazepine Barbiturales.
BZD brinding & BZD receptor which is made up of
d. r unit of GABA A.
BZD binding & BZD receptor which is made up of d, r unit of GABA A. BZD = GABA facilitatory 1 frequency of U-Channel opening.
1 frequency of ci-channel opening.

Page No.

MOA of Barbilurales -
MOA of Barbilurales — - Barbiturales building & d, B units of GABA A.
Barbiluralē: Low dose → GABA facilalālory High dose → GABA ununeliā 1 duralion of Cl- Channel opening.
High dose - GABA uninelio.
1 duration of Ct channel opening.
Benzodiazepine (BZD):
Action (USE) - Sedalion
Anti-convulsion
Anti-anxiely
SMR.
Diagepan - DOC for Aculé febrile seizure (Reclat Diagepan)
Stalus Epîlepsy (currently DOC - iv Clorazepad)
Stalus Epî/epsy (currently DOC - iv Clorazepas) Deliri um tremors
Lorazepaun – Doc for Stalus epilepsy. Alcohol withdrawl: Doc: Chloroliazepoxide. (Delirium lremon)
Alcohol withdrawl: Doc: Chlordiagepoxide.
(Delirium bretion)
Midazolaun short acling
(Kemimazolam)
Witra short acting.
- Anaesthēlic property.
the die
Alprazolam - Insomia, Arniely disorder
Long ferm use of BZD - Addiction
Jolerance
Day line sleeping.
U · ·

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BZD safe in liver failure pt:
Temazepam
BZD safe in liver failure pt: Temazepam Oxazepam (Metabolile of Diazepam). I prazepam:
Lorazepam.
Sleep onset Insomnia: Z compounds — [Zolpidem (Most common) Zopiclone All are shortacting L Zaleplan (Shortest)
Z compounds - [Zolpidem (Most common)
Zopiclone
All are shortacting [Zaleplan (Shortest)
FLUNITRAZEPAM: Date Rape drug.
FLUNITRAZEPAM: Dale Rape drug. Causes Anlerograde aucresia.
Guran 171000 July
KETAMINE: Also date rabe drug.
KETAMINE: Also dale rape drug.
BZD poisoning -
Antagnnist:
Antagonist: Competitive antagonist — FLUMAZENIL
V
prevent bending of BID C
prevent bending of BZD E a, Y unit of GABA A. - Specific antidote of BZD. - Given i.v.
- Charitie autidate of BIA.
- specific ling tout to possess
$- t_{1/2} = 60 \text{ min}$
0/2 - 00 11111
BICLICIUS TALE - Composition antagonist of Gara
BICUCULLINE - Competitive antagonist of GABA Non competitive unhibitor of BZD.
Jyon competitive and of the DLD.
PICROTOXIN - Direct cl-channel blocker.
PICROTOXIN - Durect Cl - Channel brocker.

# Inverse agonist	-	
# Humazenel u	sed for - 15 kB par	soning
	18 - Carbon	in poisoning
# Humazenil u	2-comp	suna poisoning.
BARBITURAT	ES •	
Long acling	Short acling	Ultrashort acling
- Primidone	- Secobarbitone	- Theopentone Sodiu
- Phenobarbitone	- Pentobarbitone	- Melhohexitone.
76 ochentore sadi	ium - In dicalion	
Medperijovic xvac	iv induction GA	
	Re distribution	
	Cerebro protective	7 1
0ther uses $-\Lambda$./	
OTHER WAS IN	latus etilensu.	
0/	tatus epitebey.	
Mello hexiton	e - causing convul	sion.
	Used in Electro con	vulsive therapy.
		70
tt Phenobarbitone	- melabolite of	Primidone.
$\hookrightarrow U$	ceful in Anticonvi	elsion in
	pregnance	y & sedialrics.
	eful in Aosti convi pregnant children it causes	hyperkinesia.
		0)

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General properties of Barbifuralis: - Algesic property (produce pain) - Narrow therapeutic index (thence - unsafe) ** wing ** Used in - Spilepry Anaesthesia Clinical manifestation of Barbifurates: - Hatby muscle - Comafose - Shallow & falling Resp* - Bullous eruption. T/t: - No specific antidote. - Poisoning -> Forced alkaline diversess Hemodistyric. # All barbifurates are microsomal enzyme inducer. Since powerful enzyme inducer : C/I - deute intermittant porphyria.	
:. Used, in — Epilepsy Anaesthesia Clinical manifestation of Barbiturates: - Habby muscle - Comptose - Shallow & falling Resp ^r - Bullows eruption: T/t: - No specific anticlote: - Poisoning -> Forced alkaline divuresis Hemodialysis: # All barbiturates are microsomal enzyme inducer:	General properties of Barbituralis:
:. Used, in — Epilepsy Anaesthesia Clinical manifestation of Barbiturates: - Habby muscle - Comptose - Shallow & falling Resp ^r - Bullows eruption: T/t: - No specific anticlote: - Poisoning -> Forced alkaline divuresis Hemodialysis: # All barbiturates are microsomal enzyme inducer:	- Algesic properly (produce pain)
:. Used, in — Epilepsy Anaesthesia Clinical manifestation of Barbiturates: - Habby muscle - Comptose - Shallow & falling Resp ^r - Bullows eruption: T/t: - No specific anticlote: - Poisoning -> Forced alkaline divuresis Hemodialysis: # All barbiturates are microsomal enzyme inducer:	- Narrow therapeulic index. (Hence - unsafe)
Clinical manifestation of Barbiturates: - Hatty muscle - Comatose - Shallow & falling Resp ^T - Bullows eruption: T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	V and
Clinical manifestation of Barbiturates: - Hatty muscle - Comatose - Shallow & falling Resp ^T - Bullows eruption: T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	:. Used in - Epilepsy
Clinical manifestation of Barbiturates: - Hatty muscle - Comatose - Shallow & falling Resp ^T - Bullows eruption: T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	Anaesthesia
Clinical manifestation of Barbiturates: - Hatty muscle - Comatose - Shallow & falling Resp ^T - Bullows eruption: T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	
- Shallow & falling Resp! - Bullows eruption. T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	Clinical manifestation of Barbiturates:
- Shallow & falling Resp! - Bullows eruption. T/t: - No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	- Hatty muscle
- Shallow & falling Respiration. Tt: - No specific antidote. - Poisoning -> Forced alkaline diruresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	- Comatose
- No specific antidote. - Poisoning -> Forced alkaline divuresis Hemodialysis # All barbiturates are microsomal enzyme inducer.	- Shallow & falling Respr
- No specific antidote - Poisoning -> Forced alkaline divuresis Hemodialysis # All barbiturates are microsomal enzyme inducer.	- Bullous exception:
- Poisoning -> Forced alkaline divuresis Hemodialysis. # All barbiturates are microsomal enzyme inducer.	T/L:
- Poisoning -> Forced alkaline diversis Hemodialysis # All barbiturates are microsomal enzyme inducer.	- No specific autidote.
- Poisoning -> Forced alkaline diversis Hemodialysis # All barbiturates are microsomal enzyme inducer.	
# All barbêturates are microsomal enzyme inducer.	- Paisaning -> Forced alkaling dileserie
# All barbêturates are microsomal enzyme inducer.	Howadial wic
V	Membercugas.
V	H All box lifer also are mino sound and indicate
Since powerful enzyme inducer :. GI – acule infermettant porphyria	THE NOW PARTY WAS THE MICROSSIMUL ENGINE MILLIES.
:. GI – acule intermèttant porphyria	Cinas houses tell also enue induses
91 - acute tufermen and perpugsia.	CIT Will- is with a back in
	91 - acute infermen ant porphyria.
· ·	,
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	GARA analogue
GARA	GABA analogues.
<u> </u>	Reuptake inhibitor: TIAGABINE 7 Transaminase inhibitor: VIGABATRINE
9ABI	Transammase whibefor: VIGABATRINE
	SODIUM VALPROATE
<i>Glut</i>	amic acid decarbonylese activator: VALPROATE
	·
V191	ABATRINE - DOC for infantile Spaseur
	ABATRINE - DOC for infantile Spaseur (Juberous Scienosis)
	YE → Vi`xual fi`eld defect → Psychosis
Zo	r Scriple Infantile Spasm - ACTH
	r Suiple Infantile Spasm – ACTH
4	EVATIRACETAM: Ligand for SV2A brolein
	EVATIRACETAM: ligand for SV2A prolein
	Comphia Vacciala
 	- unditu
	Synaplic Vescicle - modify synaptic release of Glutamate/GAB
	Coulrols Seizure
	· · · · · · · · · · · · · · · · · · ·
New	drug - GABAPENTIN 7 Useful in DM neuropathy pai
	drug — GABAPENTIN 7 Useful in DM neuropathy pai PREGABALIN - Post herpelic neuralgia.
	, , , , , , , , , , , , , , , , , , ,
	GANAXALONE
	- Neurosteroid
	- Direct Cl- Channel Opener
	Useful in - Absence seizure
_	- Direct Cl-Channel opener Useful in - Absence seizure Cafamenial seizure.
	and the first of t

GABA B (G-prolein Coupled Receptor) L. Agonist — BECLOFEN Antagonist — SACLOFEN
4 Agonist - BECLOFEN
Antagonist - SACLOFEN
——————————————————————————————————————
BACLOFEN - Centrally acting SMR Useful in - Hiccough Craving of alcohol.
Useful in - Hiccough
Craving of alcohol.
MELATONIN:
Sleep inducing hormone Secreted from pineal gland.
Secreted from pineal gland.
Melalonin analogue - REMELTEON
MT1 MT2
14172
Useful in sleep ouset insounia
Useful in sleep ouset insounce No risk of ABUSE/ TOLERANCE.
7
TASIMELTEON - Useful in the sleep awake
disorder in blind.
Melalonin analogue
AGOMELATINE - Agonist on MT1/MT2
, Antagonist on 5-HT2C
Melatonin analogue c
autidepressive property.
SUVOREXANT -> FDA approved drug for insomnia.
ALMOREXANT Non-selective OREXIN receptor
l'antagonist.
another orexin receptor antagonist.
- Taring to the same of the sa

	Gutamale
AMPA	NMDA
receptor	receptor
√	√ .
open Nat, Ca2+	opens Nat, G2+
channel	Channel
· ·	l
Both are li	egand gated receptor.
	<i>(</i>
# T/t of Epileps	y - Gustamalé antagonist
. 0 / / 0	
, , , , , , , , , , , , , , , , , , , ,	AMPA blocker NMDA blocker.
	Topiramale Felbamale
	Lamobrigine Vayroale
	Remaceuide
	Perampanel
	Talamperal
	<i>'</i>
Actions of Sodice	un Valproale:
, ,	sa agonisu
· Ant	i glutamale
· Nat	- Channel blocking action
· Ca²	+ Channel blocking action
· Brow	ad spectrum antiepileptic.
	, ,
Lennox Gesto	reit Syndrome:
R -> JELBAMA	TE - S/E - Hepatic failure
/\	reit Syndrome: ATE — S/E - Hepatic failure Aplastic anemia.
I VALPROATE	
Currently BZD	

TOPIRAMATE:
Use -> Epilepsy
Use → Epilepsy Prophytaxis of Migraine Alcohol (Anti Craving)
Alcohol (Anti craving)
Sucking (")
SJE -> Renal Stone
Wt·loss
LAMOTRIGINE:
Useful in - Epilepsy
BPD depressive
Rarely cause 573 (Steven Johnson Gyndrome TEN (Zoxic epidermal necrolysis)
(- 1. White growth we hereight)
NMDA blockers:
rk atamine: - Dissocialive anesthesia
Anaesthetic Xenon
1.
action L N20 (laughing gas) -> S/E - Megaloblastic Anemic
Memauline -> Useful en Alzheimers
Amortidia - Health in Portugation
Acamprosate -> GABA agonist properly, Craving alcohol- Amantidine -> Useful in Parkinsonism Methodone -> DOC for Opioid deaddiction. Rilyzole -> Useful for ALS Phencyclidine -> Angel dust.
Principle -> DOC for appring approved
Place - Oseful for ALS
Phincycliaine -> Myer aus)
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Dopamine as a Neuroliansmitter: Dopaminergic palluvay: D Meso-limbic fibre — extend upto prefrontal lobe secrete dopamine. 1 dopamine — Cause Psychosis D Nigro-straiatal neuron — D funct is to synthesise & release in corpu straitum. - helps in initiation of movement. In corpus stratum — amount of Ach & Dopamine balanced. As 1 age — adequate amount of dopamine is not secreted & there is 1 in Ach activity. Muscle sigidity occurs due to 1 Ach. — Hy pokinesia, Tremor, keste Rigidity. Jubero infundibular fibre — extend from hypothalam to anterior pituitary. — Dopamine act on Ar receptor in the brain & causes pshycosis. — Any drug blocking by & causing anti psychotic effect is called ATY PICAL ANTIPS y CHOTTC. # Juro most common Ste of antipsychotic EPS Galactorrhea	
Departmengic pallivay: Description of the extend up to prefrontal lobe secrete department. Adopartine - Course Paychosis Description of the stratum of the synthesise & release in corpus straitum. - belps in initiation of movement. In corpus stratum - amount of Ach & Department of Ach activity. At 1 age - adequate amount of department is not secreted & there is 1 in Ach activity. Muscle rigidity occurs due to 1 Ach. - Hypokinesia, Tremor, Breaks Rigidity. 3 Jubero infundibular fibre - extend from hypothalam to anterior pituitary. - Department analogue are used for 4t of galactorrhoea. - Department act on Ar receptor in the brain & causes pethycosis. - Any drug blocking Dr & causing anti psychotic effect to called ATYPICAL ANTIPSYCHOTIC.	Dopamine as a Neuro Transmitter:
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- Dopamine analogie are used for 4t of galactorrhoea. - Dopamine act on Dr receptor en lhé brain & causes pshycosis. - Any drug blocking Dr & causing anti beychotic effect is called ATYPICAL ANTIPSYCHOTIC.	
- Dopamine analogue are used for if t of galactorrhoea. - Dopamine act on Dr receptor en the brain & causes pshycosis. - Any drug blocking Dr & causing anti beychotic effect is called ATYPICAL ANTIPSYCHOTIC.	1 Julier intundibular fibre - extend from hypothala
- Dopamine analogine are used for 4t of galactorrhoea. - Dopamine act on Dr receptor en lhé brain & causes pshycosis. - Any drug blocking Dr & causing anti psychotic effect is called ATYPICAL ANTIPSYCHOTIC.	to anterior pituitary.
galactorrhoea. - Dopamine act on Pr receptor en lhé brain & causes pshycosis. - Any drug blocking Dr & causing anti beychopic effect is called ATYPICAL ANTIPSYCHOTIC. # Juo most common Ste of antipsychopic / EPS Galactorrhea	- Dopamine analogue are used for 4t of
- Dopamine act on Dr receptor in the brain & causes pshycosis. - Any drug blocking Dr & causing anti psychotic effect is called ATYPICAL ANTIPSYCHOTIC. # Juro most common GE of antipsychotic / EPS Galactorrhea	galactorrhoea.
& causes pshycosis. - Any drug blocking D2 & causing anti-psychotic effect is called ATYPICAL ANTIPSYCHOTIC. # Iwo most common GE of antipsychotic / EPS Galactorrhea	- Desquine get on De receptor en lhé brain
- Any drug blocking D2 & Causing anti psychotic effect is called ATYPICAL ANTIPSYCHOTIC. # Two most common GE of antipsychotic / EPS Galactorrhea	l course pshycosis.
effect is called ATYPICAL ANTIPSYCHOTIC. # Two most common GE of antipsychotic / EPS Galactorrhea	- Any drug blocking Do & causing anti psychotic
# Two most common GE of antipsychotic (EPS Galacforrhea	CHICAL COMOS ATYPICAL ANTIPSYCHOTIC
# Two most common GE of antipsychotic / EPS Galactorrhea	The state of the s
Galacforrhea	the The word common SIE of antiboughotic / EPS
7-07-07-07-07-07-07-07-07-07-07-07-07-07	Galactorrhea
	7.20,000

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# Levodopa & C		7		1	,	
		(D Ps	ychosis		
		R) ch	preoalhē	tois	d movement a).
				Dycku	nesc	à).
PSYCHOSIS:						
- Over ac	lion	of D	opau	une.		Typical ofic.
- D2 ble	ckers	$\stackrel{U}{\longrightarrow}$	com	enliona	ul/	Typical
				Antipo	sych	otic.
				/ (<i>y</i>	
Convenle	oval	/ Typu	ial A	fatipsye	ehol	ic drugs
	7	(//	t ^c	/ (/		<i>(</i> /
Phenothiazine		But	yropi	henones		Thioxanthene
Chlorpromazi	ne		operi			This thixene
Irifuperazine		Trift	uper	idol		Hupenthixol
Thioridazone		Drof	seria	col		
Huphenazine		Pent	<i>luric</i>	lol-LA		
/ 0						
# Typical ant	ipsy	cholic	= 1	Veurolep	elec	agents.
	, ,					•
# Most poten	+ D2	block	er / #	ntipsyc	hole	it = Butyrophen
						V
<u> </u>						Maxim EPS prode
THIORIDAZ	INE .	<u> </u>	->	Corneal	þig	mentalion
			/	efinal c	dege	ineration.

Page No. Date: / /
Mad but I a to
VIORT POTENT Antipsycholic - HALOPERIDOL
Cause Maxm Eps
Less ANS Side effect.
CHLORPROMAZINE - Causes Cholestalic jaundice.
Drug induced Parkinsonism: TOC - Centrally acting AntiCholinergic
Toc - Centrally acting Anticholinergic
Irihexy phenidyl (BENZHEXOL)
Olher - Benz tropine
Biperiden Procyclidine.
Procyclidine.
PROMETHAZINE - 1st gen antihistamine
PROMETHAZINE — 1st gen · antihistamine have antiCholinergic aclien So, used in EPS.
So, used in EPS.
Extra pyramidal Syndrome:
Extra pyramidal Syndrome: ① Drug induced Parkinsonisiu ② Acule muscular dystonia: PROMETÄZINE BENZHAXAL
(a) Acule muscular dystonia: PROMETAZINE
BENZHAXAL
3) Tardive dyskinesia: No specific t/t Symptomalic - Valproate, Vit E
Symptomalie - Valproate, Vit. E.
VALBENAZINE (Newer drug)
VALBENAZINE (Newer drug) - Acts by Vesicular unonoauine transporter 2 inhibitor.
2 inhibitor.

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4) AKATHESIA - DOC: Propranolol
6 Malignant Neuroleplic Syndrome: DANTROLENE
directly acting SMR.
Anti-Parkinson drug:
LEVO DOPA: Profein meals reduces absorption of levodopa. Vit-B6 (Pyridonine) should n't be given c levodopa bcoz it slimulale peripheral conversion
Vit-B6 (Pyridonine) should n't be given c
levodopa 600z et struulale perepheral
conversion.
Peripheral toxify:
M/c S/E of Levodopa - Nausea & Vounithing
M/c S/E of Levodopa - Nausea & Vounitting Alteralian in taste sensalian.
•
due to stimulation of Dz receptor.
un CTX.
Dz receptor blocker - Domperidone Metaclopramide.
Metaclopramide.
Only domperidone is useful en to to vomitting due to levodops. # Metaclopramide is not used to book it crosses BBB & reduces efficiency of levodops.
due to levodots.
Metaclopramide is not used to boox it crosses
BBB & reduces efficiency of levodopa.
00 0 1
Causes - Cardiac arrhythemas
Excerbation of angina
Causes - Cardiac arrhythmas Excerbation of angina -dul to D, B, d, activation.

	Page No.
	Date: / /
LEVODOPA + CARBIDOPA	
> Dopa decarbonylase l	ishibitor
Long term S/E 1 Abnormal Choreo	alteloid movement
Long ferm S/E > Abnormal Choreo > Psychosis	
7 - 9	
# Hunlington's Chosen 7 management of	luni da d
Tourette Sundrous our salien	t de la companya del companya de la companya del companya de la co
# Hunlington's Chorea 7 movement de Tourette Syndrome overaclion of	t dopanine
T/t - DOC: TETRABENAZII	
Ober - Chlororomas in	e
Olher - Chlorpromazin Haloperidol.	
- Trapozaci	
# Levodoba in Precusion of melanin	
# Levodopa is Precursor of melanin - GI in melanoma	
92 or succession	·
# Chronic therape of levo dopa mon caus	re On & off thenousen
# Chronic therapy of levo dopa may caus	J. A. Friedmann
dyskine	sià Severe
- Cuys Kine	parkursonesu
	1
	Rescue therapy
	- APOMORPHINE (4)
	given S/c.
# Abrubt withdrawl of loundaba -> Ne	
# Abrupt withdrawl of levo dopa -> Ne malignant Sq	en drome.
margrood of	<i></i>
	

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AMANTIDIN	VE:
.9.,1	Yuan sa
- Cang	Huenza
InHueuza A	Influenza A&B (Bird Flu
Influenza A – Amantadine	Influenza A&B (Bird Flu - Oselfaminir
- Rimantadine	- Zanomivir.
Osellattivir – 75	mg/1BID/5days — Oral
4 Produg	- mg / 1BID / 5days — Oral - Causes Nausea & Vouitting.
	0
Zanamivir - Intra	urasally - Branchospasus
Vaccinalion:	
PERAMIVIR (Neuraminidase Inhibitor)
Ļ I	V (Intravenous)
Amanfédine:	
- Anti choline	rgic
- Dopaminergie	. agonist
- Dopaminergie - NMDA antago	nisur.
- Useful in Park	(inconism
. 0	
YE - Ankle edema	
Levido reticul	Paris. (Net like skur rashes).

(3)	Page No.
@ =	Date: / /
3 -	# Ergot Dr agonist: Bromocripline
3	
3 -	Pergolide Cabergoline
(3) (4)	Common GE of these 3 druge — Erythronnelalgia. Cardiac valve fébrosis.
<u> </u>	Cardiac valve fibrosis.
_	
®	# Pergolide - Causes max ^u Cardiac valve fitrosis.
-	
@	Other uses of Bromocripture:
⑤	Olher uses of Bromocripture: - Prolactinoma.
(- Acrowegaly - Type 2 DM
(- Type 2 DM
(3)	Q/
	Non-Ergot De agonist: Pramipexale 7 M/c s/E Psychosis.
(3	Non-Ergot D2 agonist: Pramipexole 7 M/c s/E Psychosis. Ropinirole
4	Rotigotine (Iransdermal) Advantage: No peripheral vasoconstriction.
© —	Advantage: No peripheral vasoconstriction.
®	
&	Pramipexole 7 — SIE -> Compulsive shopping Ropinirole Kleptomania Sexual desire > Useful for t/t of Restless leg Syndrome.
&	(Ropinirole) Kleptomania
<u></u>	Sexual desire
	> Useful for t/t of Restless leg Syndrome.
\$	
45	
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&	
®	
®	
<u></u>	

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COMT	enhibilors
Comi	
JALCAPONE	ENTACAPONE
Dangerous loxicity	- doesn't crosses BBB.
- Rabidomyolysis	
- Severe Brasshoea	
- Hepatotonicity.	
, V	
Urine - Yellowich Orange.	
'	
	COTONIN (5-47)
Source - hyptoph	au
June" of SHTIA - July	an vibition of release of Serotonin.
ν	
Autoreceptor of	Serofoniti.
Managuira	walahali lu Mamaawii
Anidas (1900)	They produce welchelde
5- hudsmus	They produce wetabolite
o manage	made colour and
# In Carcinoid tumo	ur - 1 5-hydroxy indole acetic
# In Carcinoid tumo	ur — 15-hydroxy indole acefic acid.
# Serotonia undergoe	er reuptake causing & central
# Serofonin Undergoe Serofonin.	
Action of Serotonin on	SHT1 B/D - Vasoconstriction
<i>U</i>	→ SUMATRIPTAN (USE-Migraine)
	(mainly 1D; min 1B)
Action of Serotonin on :	5HT2 - Shizophrenia
U	$(5HT_{24/2c})$
·	> Closopine
•	Risperidone Olanzapine
	<i>3</i> /

Date: / /
Aclien of Serotonin on 5473: Nausea & Vouritting
5H73 anlägonist – Ondaselrön Graniselrön
Granipelron
9.000000
Aclien of serolonin on 5474: Diarrhoea.
Selective 5HT4 agonist — Cisapride 7 withdrawn Mosapride 6coz of Jegaserod 9T prolong— -ation on ECG.
Marchaide Gan of
Teansand OTher
Jeguserog 91 projong
All waster and a second seco
All serotonin receptors are G-profein compled receptor. except 5473 (ligand gated receptor)
Aculé Migraine: Main issue - Vasodi lation
For t/t of Acule migraine - Vasoconstrictor
Ergot Alkaloids - Esgotamine
5HT1B/D agonist - Sumatriptan (DOC)
Rizatriptan
Almotriptan
Frovatriptan
Zolmitriptan
·
Care is taken for HTN & IHD in these pts.
St Anthony's fire -> chronic treatment & ergot alkaloid cause peripheral vasoconshiction
alkaloid cause peripheral vasoconskickon
(gargrere of foot)
(gangrene of foot) Poisoning — Ergotism

(

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BUTOPHANOL - Opoid
Used intranasally for Headache.
Q V
Drug useful for Prophylaxis of Chronic Migraine:
Drug useful for Prophylaxis of Chronic Migraine: O M/c drug — Propranolol (B-blocker) O CCB — Hunarazine
@ CCB - Hunarazine
(Nat Channel blocking
& Antioxidant property)
3 Anti-convulsant - Valproafe
Gabapentin
Topiramate
3 TCA - Amitryptaline.
. "
5 Cloudine
(acts)
OnaBotulinum toxin A
6 5HTz blocker
- Pizotofen
- Cypro heptadine
- Cypro heptadine Antihistamine + Antinuscarine
+ Antiserotoniae.
· Primary used as appetizer
· Used in Serotonin Syndrome.
- Methylsergide (Not used)
- Causes retro orbital & peritoneal fibrosis
Newer drugs - Calcitonin gene related peptide (CGRP)
- Vasodi lation.
CGRP antagonist -> Oleegepant - i.v.
Telcagepant - Oral Telcagepant - Oral L. Hepato toxic
"Ly Hepato foxic
,

	Page No.
	Date: / /
# LASMIDITAN - SH	HTIF agonist
	V
Undertrial	
Alypical	Antipsycholice
1/5472	Antipsycholice 2 Antagonists)
Clozapine	L. Advantages:
<u>Quetiapire</u>	· Less EPS
Olanzapine	· Refractory Cases
Risperidane	· +ve & -ve symptoms
Lurasidone	of Psychosis.
Ziprasidone 7.	-> Not causes Metabolic Syndrome
Aripriprazole	4
Asenapine (S/L)	
CLOZAPINE - S/E → A	granulocytosis 0.8-1%
	granulocytosis 0.8-1% (dose independent)
	zure (10%)
	us (Paralylic) → Constipation
Sial	forrhoea
Met	abolic Lyndrome.
- Pil	Low But Syndrome
	-wet-
- Ant	i-suicidal action.
QUETIAPINE - S/E-	Calaract, Priapisus
OLANZAPINE - USE -	Mania in BPD
Adverse	effect -> Max ^m est gain Max ^m metabolic syndrome.
	Maxim metabolic syndrome.
	U

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RESPERIDONE: In addition to blocking 5HT2 it also block Dz.
it also block Dz.
· May cause EPS
V
LURASIDONE: Useful in BPD usay also cause EPS.
may also cause EPS.
ZIPRASIDONE: M/e S/E - 97 Prolongalion.
ARIPIPRAZOLE: Useful in BPD (mania) — Best drug among alypical antipsychotic
- Best drug among alypical
anti psychotic "
ANXIETY DISORDER:
& GABA activity
& GABA activity. 1 5HT activity.
BUSPIRONE: 5HT1A agonist
Anti anxiely agent (Chronic Anxiely)
Advantage - Non sedalwe Non habit forming. Disadvantage - Delayed in onset
Disadvantage - Delayed in ouset
(3 to 4 wks)
For acule anxiety - Temporarily - BZD
For aculé anxiety – Temporarity – BZD
Performance appeiell = R: Propranolol
Performance anxiety = R: Propranolol Anxietý č panic attack = R: SSRI
41 blocker: Hudspauzine (Antianaieli broperty)
#1 6/ocker: Hydroxyzine (Amti anxietý property) L 1st gen antihistamine
Colstains > Metabolite of Hydroxyzine
Celrizine -> Metabolite of Hydroxyzine -> 2nd gen. anti-histamine.
- com yen. and out

Female Sexual Stimulant: FLIBANSERIN
Luseful in
HSDD - Hypoaclive Sexual desire Order
Deficiency of Serolonin & NE - Depression
TCA, SNRI, NDRI -> Inhibit reuptake of SHT, NE
TCA, SNRI, NDRI -> Inhibit reuptake of 5HT, NE SSRI -> Inhibit reuptake of 5HT.
MAO-inhibitors
MAO-A MAO-B
- Livolved ein metabolism - Melabolism of Dopamine
of NA & SHT. SELEGELINE
7
- Useful un depression. RASAGILINE SAFINAMIDE
Selective [MECLOBAMIDE
MAO-A CLORGILINE
Non-selective MAD inhibitors:
PHENELZINE
TRANYLCYPROMINE
I SO CAR BOX AZID
Cheeze reaction = T/t: Phentolamine

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SSRI:
Fluoxeline (longest acling -> 5 to 7 days)
Fluoxeline (longest acling -> 5 to 7 days) Fluoxamine - Shortest acling
Paroxeline
Citalopram
Escitalopram - Highly selective SSRI
Escitalopram - Highly selective SSRI Sertraline - Least drug interaction.
Ste of SSRI - Man Cause HTN
- Insomuja Anxielū Sexual SE.
- Insomnia, Anxiely, Sexual GE. b delay in ejaculation
e It is token in morning:
2. It is taken in morning.
Useful en t/t of premalure
M/a - Nausca & vowitting
M/c – Nausea & vomitting – Diarrhoea
· · · · · · · · · · · · · · · · · · ·
Dina internation:
Drug interaction: Serolonin Syndrome - SSRI + MAO whibitor
D - Charles 1 ad 1
R - Cyproheptadine. L Primarily 5H72 antegonist Anti H1 + Ach
And the said
ANTE HI T ACK
h 2
JLUOXETINE: Least disconlinuation Syndrome
PAROXETINE - Wtgaun
Teratogenic tension
Teratogenic tension Used in Premenslinal Syndrome (PMTS)
FDA approved.

Page No.
Date: / /
Drug enteraction 6/w Huoxeline & Tamoxifen: Jamoxifen – for anticancer activity needs activation - activated & help of CYP2D6 enzyme Huoxeline – CYP2D6 enzyme inhibitor.
Jamoxifen - for anticancer activity needs activation.
- activated & help of CYP2D6 enzyme.
Fluoreline - CYP2D6 enzyme inhibitor.
Jamoxifen failure occurs.
0 0
SSRI Uses:
O Depression
- guvenile depression - Fluoxeline
O Depression - guvenile depression - Huoxeline Sertraline
(2) OCD
3 PTSD
9 Bluma nervosa
(5) Anxiety & panic attack.
(5) Anxiety & panic attack. (B) PMTS.
· ·
DOC: SSRI : O OCD
(2) PTSD
3 Anxiely & panic attack.
. (
TCA.
- Inhibit reuptake of Serotonin & NE (Non-Selective)
CLOMIPRAMINE - T/t of OCD
DOXEPIN - Strong antihistaminic property
· Appic dermatitis
CLOMIPRAMINE — T/t of OCD DOXEPIN — Strong antihistaminic property • Atopic dermatitis • Lichen Scmplex
All TCA have antihistaminic property.

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	IMIPRAMINE - Strong anticholinergic activity.
	1MIPRAMINE - Strong anticholinergic aclivety. Noclurnal enuresis
	. Doc: Desurpressin
	All FCA have auticholinergic activity.
	AMITRYPTILINE
	Used in - Anlidepressant
	Prophylaxis of migraine
	Prophylaxis of migraine DM neuropathy pain
	1 / / /
	Gabapenlin, Pregabalin
	Other - Nortyline
	Other - Nortryline Desipramine
,	Amoxapine - Dr blocking action
	Anti-psycholic
	Anti-psycholic EPS, Galaclorrhoea.
11	Maprotiline
	Maprotiline Reboxetine
	Adverse effect of TCA:
	- All TCA having antihistaminic property
	- All TCA having antihistaminic property " anticholinergic " " d, blocking "
	" de blocking "
	- Sedalion, W+ gain, Seizure
	V Justin Congress
	: taken at bed time.
	- Dryness of woulk, constitution, Pachycardia Refention of urine - Postural hypotension
71.7	- Postural hypotension
	<i>d/</i>

	Page No.
	Date: / /
TCA poisoning & t/t:	
Cardíac arrhythmia -> Lidcocain	e, Bretylium, Avoid class
Convulsion - Diazepaun	U
Coma →	
Melābolic acidoris -> i.v. Sodiu	u bicarbonate
- No role of dialynic in To	CA poisoning
6 5002 large Vg.	7 0
3	
# Anti-cholinergic	
(1) Avoid TCA in elderly male -	- Aggravate Urinary
# Anti-cholinergic (1) Avoid TCA in elderly male—	Refertion.
2) Alzheimer's de.	
ST JOHN'S WORT:	
Natural antidepressant	1 .
HE HYPERFORIN	
4 Monoamine reupte	ake inhibitor.
- Very bowerful enzyme inducer	υ· .
- Very powerful enzyme enducer	
lead to our faile	vre·
lead to ocp faile Anti relioviral	fàilure ·
	<i>i</i>
# MIANSERIN: Presynaptic d	z einhibitor
# MIANSERIN: Presynaptic d Useful in dep	ression.
MIRTAZAPINE: Presunaptic de	15HT1 inhibotor
Useful in de	bressiew.
MIRTAZAPINE: Presynaptic dz Useful in de - Na SSA (Noradr serotoner	energie & specific
serotoner	sic antidepressant).
	1

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#	TIANEPTIN 7 5HT reuptake enhancer
	Used antidepressant
	Used as antidepressant Mechanism of action not known.
	V
	BPD (Bipolar Disorder):
	Prophylaxis - Lillium
	Aculé mania - Varproalé
	Carbamazepine
	Olanzapine
	Aribiprazole
	Diazepam
	Depressive phase - Lamolrigine
	•
	For Rapid Cycler: DOC: Sodium Valproate
	For Rapid Cycler: DOC: Sodium Valproate L. more than 4 episodes of mania & depression in a year.
	in a year.
	<u> </u>
	Lithium: Monovalent calion
	Useful for prophylaxis of BPD.
	Useful for prophylaxis of BPD. Narrow Therapeutic index (TDM)
	7herapeulie drug monitoring
	_
	Monitoring plasma lithium level
	$Ty_2 = 24 \text{hrs.}$
	Maintanence for BPD = 0.5-0.8 meg/L
	Acute Mania = 0.8-1.2 meg/L
	Joxic symptom > 1.5 meg/L
	Joxicity -> Hemodylasis -> 4 meg/L
	Ÿ

Adverse effect of lithium:
LI = Leucocyte count 1 (Leucocytosis)
$LI = Leucocyte count 1 (Leucocytosis)$ $T = Tremor (M/c \rightarrow 8-10 Hz)$
H = Hypothyroidism (Inhibit release of 72 & Ta)
H = Hypothyroidism (Inhibit release of 73 & T4) IU = 1 urinalian (polyurea = D1) (&: Amiloride) M = Mother (Ebstein's anomaly) = Jeratogen
M = Mother (Ebstein's anomaly) = Jeratogen
In CVS > 7 wave changes Dermafology -> Exacerbation of proviosis.
Dermatology -> Exacerbation of provisis.
C/I: 1) Pregnancy & Lactation
C/I: ① Pregnancy & lactation ② Sick sinus syndrome.
Drug interaction b/w lithium & SMR (Succinylcholine & Pancuronium): Lithium aggravate the action of SMR. Lithium 1 day before Sx.
& fancuronium):
4 Lithium aggravate the action of SMR.
4 Stop lithium 1 day before Sx.
Hypanatremia will occur in lithium toxicity.
Hypanatremia will occur in lilhium toxicity. ———————————————————————————————————
L WSAID ", , , .

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Opioid Receptors. 3 unp endogenous opoid Receptor in body M (M4) 8 (Della)
3 unp. endogenous opoid Receptor en body
- (My)
8 (Della)
R (Kappa)
All opoid receptor are GPCR - via Gi pathway.
Endogenous opoid peptides:
Endorphine - mare affinity toward M Enkephaline - " " " &
Enkephaline - ", " " &
Dynorphin - " 2 k
Aclien of opoid: - Due to aclivation of μ & S. P = Physical dependence, 1 Protaction secretion
- Due to activation of \$1 & S.
P = Physical dependence 1 Protaction secretion
M = Miosis No Tolerance
C = Constipation, convulsion (M3G)
A = Analgesic
$R = Resp^r$ depression
E = Euphoria
S = Sedation
Opioid are useful in the of dull pain
Continuous pain
Localised pain Visceral pain
Visceral bain
Opioid (Morphine) actuating Edinger nestphal nucleus
(III CN) causing miosis.
Only systemic Morphine cause miosis.

Aclien of opiois due to kappa:
D = Dyephoria
M = Miosis
A = Analgesia
_ 11
$R = Resp^{r} depression$ $D = Diuresus$
S = Sedation
Merphine having Histamine Releasing action.
Morphine having Histamine Releasing action.
Vasodiation
1
Shifting of pulm fluid in systemic circulation.
Shifting of pulm fluid en systèmes cerculation.
It is useful for the of Pulm. edema.
All the action of morphine way develop tolerance on
All the action of morphine way develop tolerance on repeated administration except - Miosis
Constipation
Convulsion
Enkephalins way undergo mofabolism by Enkephalinase. For the 4t of diarrhoea - Racecadofril
. 0
Enkephalinase inhibitor.
,
Pure agonist: Codeine converted in morphine by cyproble Natural opioid - Morphine, codeine (CYP2D6) Semi Cuntation - Discontinue and in the converted in morphine by cyproble Semi Cuntation - Discontinue and in the converted in morphine by cyproble Semi Cuntation - Discontinue and in the converted in morphine by cyproble Semi Cuntation - Discontinue and in the converted in morphine by cyproble Semi Cuntation - Discontinue and in the converted in morphine by cyproble Note that is a semi converted in morphine by cyproble Note that is a semi converted in morphine by cyproble Note that is a semi converted in morphine by cyproble Note that is a semi converted in the converted in morphine by cyproble Note that is a semi converted in the converted in morphine by cyproble Note that is a semi converted in the
Natural opioid - Morphine, codeine (CYP2D6)
Natural opioid - Morphine, codeine (CYP2D6) Semi cynthetic - Diacetyl morphine (Heroin), Pholodeine
Synthetic - Pethédine (Meperidine - Antimuscarine,
Yor-pethidine > Metabolite of pethadis GI in the MI pain. SE-Seizure (convulsion)

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# Pelhidine & Morphine GI in Renal failure.		
Meltradone:		
- longest acting opioid		
- NMBA blocking property & inhibiting reuptake		
- Longest acting opioid - NMDA blocking property & inhibiting reuptake of NE & SHT: - Useful for the of neuropathic pain & Cancer pain - Doe for opioid deaddition.		
- Useful for t/t of neuropathic pain & Cancer pain		
- Doc for opioid deaddition.		
0 1		
Tramadol:		
- Also having property of inhibiting reuptake of SHT&NE.		
of SHT&NE.		
V		
# Be careful using Methadone & Tramadol in pt. using SSRI, MAO inhibitor causing Serotonin Syndrome.		
using SSRI, MAO inhibitor causing Serotonin		
Syndrome.		
U .		
Tentanyl: Jentanyl group.		
0 0 1		
Jenfanyl Sufentanil Alfertanil Remitentanyl		
Potency X100 X1000 X5 X100		
potent than Morphine		
Duralion. 30 min 30 min 5-10 min 3-5 min		
of action		
Least potent: Pelhidine & proposyphane (1/10)		
7 / ()		
Analgesic for day care Sx: Remitentanyl.		
# Jentanyl + Droperidol = Neuroleptic Analgesia		
/ /		

Fentanyl + Droperidol + N20 = Neuroleptic anaesthesia.
Fentanyl group cause Post of bruncal rigidity
(Max - Algentanil)
Fentanyl group Cause Post of bruncal rigidity (Max - Alfentanil) # Thorax muscle rigidity = wooden chest Syndrome.
Mixed agonist - antagonist: - U artagonist / Kappa agonist: ·Nalorphine (niore dysphoria, not in use) · Pentazocine (Sympathetic stimulant) Gi in MI pain · Butorphanol (Nasal formulation)
- M artagonist / Kappa agonist:
· Natorphine (more dyphoria, not in use)
· Pentazocine (Sympathetic stimulant) (1 in MI pain
· Butorphanol (Nasal formulation)
. /
- Magonist / Kappa antagonist:
Buprenorphine - Useful for all type of pain - Useful for opioid withdrawl
- Useful for all type of pain
- Useful for opioid withdrawl
alfernate to melha done.
Pure anlagonist:
Nachzone Jahren
Naturefene Intravenous
Naltrexone (Oral, long acting, Hepatotoxic)
V V /
Acule morphine poisoning:
Acule morphine poisoning: Specific antidote - Nalaxone (0.4-0.8 mg)
i.v., repeated every 2-3 min.
i.v., repeated every 2-3 min. - It blocks is receptor at much lower doses than those needed to block k or 8 receptors.
needed to block K or 8 receptors.
- It promptly antagonizes
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Mattexane	
# -> Useful to control craving & craving for alcohol	g for Morphine
& craving for alcohol	.0
, — . <i>U U</i> .	
# For t/t of constipation due to morphin	e (opioid)
, , , , , , , , , , , , , , , , , , , ,	
Peripheral opioid [ALVIMOPEN	
Peripheral opioid [ALVIMOPEN aulagonist METHYL NALTREXONE	E
Newer opioid:	
Newer opioid: Peripheral Kappa antagonist: ASIMA	DOLINE
· /	
for IBS	3
Peripheral M & K - agonist; delta antago	mist:
Peripheral μ & k -agonist; delta antage $ELUXADOLINE \rightarrow for 1$	BS.
Peripheral K-antagonist:	
Peripheral K-antagonist: NALFURAFINE -> ANtipuralic	> CKD
# Codine 7 Anti Linning of	
# Codure Dextromethorphan] Anti-tussive of	told.
# Anti-diarrhoeal opioid:	
	an be added to
Diphenoxylate (Atropine co Loperaniide pro	eventaddiction).
# C/I of Morphine:	
- Head injury bain (Resp' e	isufficiency)
- Biliary colie pain I Causing	Constant of the
# C/I of Morphine: - Head injury pain (Resp' is a series of severe asthma of	sphincted of oddi.)
Severe Wyrum	oddi.)
· · · · · · · · · · · · · · · · · · ·	

Ethiyl Alcohol / Alcohol:
Deaddiction - Disulfiram like reach
(Aldehyde dehydrogenase inhibitor)
Drug causing Disulfirain like reach:
C = Chlorpropauside (Sulfonylurea - DM)
Cefoperazone (3rd gen. Cephalosporin)
M = Metronidazole
Praised = Procarbazine (Anti Cancer) -> Alkylated
G = Griseofulvin
T = Tinidazole
Naidu = Nitrofurantoin (Causes Coffee colour urine)
Chronic alcoholic generally suffer Thiamine deficiency.
- always
Alcohol undergo Zero order Kinelic elimination:
Zero WANT Power
W = Warfarin
A = Alcohol
A = Aspirin
T = Tolbufamide
T = Theophylline
T = Theophylline P = phenytain
Excretion of Alcohol - Kidney
U
In acule elhanol poisoning, pt. presenting c
In acule elhanol poisoning, pt. presenting c hypoglycemia. T/t = Glucose + Thiamine.

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14 11-1 -1-01-01:
Methyl account
Melhýl alcohol Melhýl alcohol
Formaldehyde
Jornic acid (dangerous) < Ocular damage Mejābolic acidosis
Mejābolic acidosis
·
Specific antidote for Melhanol poisoning
Specific antidote for Melhanol poisoning
Fomipizole
4-Methyr pyrazole)
Acting by inhibiting Alcohol dehydrogenase.
Acting by inhibiting Alcohol dehydrogenase.
Alfernative drug — Elhanol also given. Hemodialysis.
Hemodialysis.
Auti craving drugs for Alcohol:
- Diculvingun (soc)
Anti craving drugs for Alcohol: - Disulfiram (DOC) - Naltrexone (1st line drug)
- SSRt (citalapram)
- Ondaselron
- Joperamale, Becloter (GABA agonist)
- Rimonabant, a CBI receptor antagonist.
•

JAS (Jefal alcoholic syndrome):
Maxillo fadal abnormalities
Movement disorder - Hyperkinetic-
Mental retardation
Phenytoin:
Phenytoun: Na+channel blocking artiepileptic
Josphenytoin - Prodrug of phenytoin
Josphenyfoin - Prodrug of phenyfoin Waler soluble (im/slowiv) Leafe for—
Lsafe for
Saluralian Kinelia - First order -> Fero order
Adverse effect: (1) Acule toxicity - On high iv> Cardiac arrest.
1) Acule toxicity
- On high i.v> Cardiae arrest.
- On high i.v. → Cardiae arrest. - High oral → Nystagmus
Ataxia
Diplopia Vertigo
2) Chronic loxicity
- Gum huter (sobby (M/c - 30%)
- Gum hypertrophy (M/c - 30%) La Due to collagen accumulation
- Blood → Megaloblastic anemia (Folic acid deficiency)
Intertare Vit k activity (Hemorrhage)
Interese - 1/27 D& Calcium activity.
Interfare Vit k activity (Hemorrhage) Interfare - Vit D & Calcium activity Us promalacia & rickets
/ /4/

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- Hypersensilivity reach → Pseudolymphoma.
> Pseudo lymphoma.
 - In female → Hirsulesin - Inhibits release of circulin from B-cell of pancreas - Hypergycemia (DM)
- Inhibits release of circulin from B-cell
of pancreas - Hyperglycemia (DM)
- Jeratogenicity -> due to Areneoxide
Ly C'z Cleft lip & palale
P = Hypoplastic phalanges
- Jeratogenicity → due to Areneoxide L> C = Cleft lip & palale P = Hypoplastic phalanges M = Miero cephaly.
/ (
- Extavasation of pheny four -> Purple
- Extavasalion of phenyfoin -> Purple glove syndrome.
Phenytoin - Microsomal Enzyme inducer
Non-epileplic uses of Phenytoin:
Non-epileplic uses of Phenytoin: - Trigenuial neuralgia - Digonin - induced VT - Wound healing
- Digonin - induced VT
- Wound healing
Carbamazapine:
DOC for Partial Seizure (Focal seizure) For 4/t of Temporal lobe epi/epsy.
Non-epileptic uses:
Doc for Trigeminal neuralgia.
Doc for Trigeminal neuralgia. Useful for Ht mania in BPD Carbamazapine having SIADH activity -> Antidiuretic 4 Use in DI
Carbamazapine having SIADH activity -> Antidiuretic
U) 4 Use in DI

] [
	Page No.
	Date: / /
	# 9t is unicrossamal pursume inducer.
	# 9t is uncrosomal enzyme inducer. It also undergo auto induction.
	1 The state of the
Ĩő	Phenobarbitane
	Carbamazepine
	Neverapine
	Sodium Valproate: - Broad Spectrum antiepileplie.
	- Broad spectrum antiepileplie.
7 ~	MOA = GABA agonesus property
5	Anti-glutamate"
7 0	Not changed blooking
	T-lype CCB "
9	
9	DOC for Mysclonic / Atomic / Clanic & tonic Seizure
	first line drug for Assence Leizure/ Lennox Gestaut
þ 🗣	Syrdrome.
96	Non-epileptic uses:
9 6	a last testamente
0	- Manic in BPD (LITHIUM)
0	- Rapid cycler (>4 cycler/year) - Jardive dyskinesia
0	- Jardive dyskinesia
1	# It is microsomal enzyme enhibitor
10 C	
b -0	JE: V = GIT, Wt. gain (Vomitting)
lo z	AL = Alopecia / Curling of hair
	P - Tancreatetts, hyper ammunea
	R = Rashes
	Q = PCOD

Page No.	⁸²
Date: / /	To & rable
	tip & palate =
A = Allergy Most Oning hitidal CVS problem C	rofacial/
T = Jeratogenec (Spara Suldran)	digital)
A = Allergy Most T = Jeratogenic (Spina bifida/ CVS problem/ C E = Hepatotoxi Rity (<2yn children).	
	-
t/t = Carnifine (Antioxidant)	
Others Antiepileplic:	
- Levalinacefam (SV2A)	
- Magnesium Sulfale (DOC in eclampica)	
- Acelazolamide 1 D	6
- ACTH (Infantile Spasm)	6
<u>Levaliracelain</u> - Modify synaptic release	
glutamate/ GABA.	
0	©
Acefazolamide:	······
- Carbonic anhydrase inhibitor.	
- Useful for Glaucoma -> Paken Orally - Used as diurelies - acts on PCT	·
- Used as divirelies - ack on PCT	
Use - Acute mountain sickness	*
Periodec paralysis	<u> </u>
Absence seizures 7 R-GANAXA	LONE
Catamenial epilepsy-	
/ / V	•
Absence Seizure:	•
Absence Seizure: - Abo of T-type Ca2+ Channel (Thalas	nue)
0 '0	
R: T-type CCB	
ETHOSUXIMIDE	•
SODIUM VALPROATE (15	tlinedrug) 🛎
TREMETHANIONE (Withdrawn -	Nephrofoxic)
> Hemoralopia − Da	y blindness.
′ (

5	Page No.
0 —	Date: / /
-	# Anti epi/eptic having Carbonic anhydrase inhibiting
	# Anti epi/eptic having Carbonic anhydrase inhibiting property:
9	TOPIRAMATE 7 cause Nephrolithiasis
5	ZONISAMIDE
2	# RETIGABINE 7 Potassium channel opener
•	New drug on lip & Ekin
~	A company of the comp
	GENERAL PHARMACOLOGY
8	Pharmacokinelics (PK):
Ď	Drug absorption:
	Food einlerfare drug absorption
	eg: Milk (Ca ²⁺) — Jetracycline Protein meal reduces — Absorption of Levodopa.
Š —	Profein meal reduces - Hosospillar of contacts
5	O + ide along their
	Fibrates — Lowering Choleslerol diet.
	Lilheun
1	Halofaulrine
Ô	Lunefantrine
13.	Greseo fulvin
	Bedaquilin
	Fibrates - Lowering Choleslerol
Ö	— more assorbed \(\bar{c}\) choleslerol def.
6	•
	- Absorption of Iran 1- Vit. C (Ascorbic acid)
T	
	the for a drug to absorb beffer - lipid soluble
Ó	# For a drug to absorb beffer — Lipid soluble & distribulion: Non-ionised.
	4 cas acception
6	
-	

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Date: / /	
# Acidic drug non-ionised en Acid medium.	-24-
Basic drug non-ionised in Basic medium.	
> Assinin	
# Acidic drug - Absorbed in Stomach.	Ö
# Acidic drug - Absorbed in Stomach. Basic drug - Absorbed in Duodenum Intestine.	
Morphine	0
# Strongest Acid/ Alkali always seen in ionised form.	
Heparin - Can't be used orally.	
, - Heparin consed molecule, not cross the	_ Š
DOC – for anticoagulation.	_m_
Doc – for anticoagulalion.	
U (
Lignocaine - for rapid absorption/ouset of octions	Ó
Lignocaine - For rapid absorption/ouset of actions V given c Sodium Carbonate. Weak basic drug. For 1 duralion given c Adrenatine.	
Weak basic drug. For 1 duralion gwein & Adrenaline.	-Ô-
V V	-
Acidic drug poisoning -	•
For acidic drug poisoning if the pt. is	
passing acidic urine, you should alkalise the urine.	•
Vrine alkalise & Sodium bicarbonate.	6
Alkali drug poisoning -	
For the Ht of alkali drug poisoning if the pt.	(6)
	٥
passing alkaline withe, you should accidify the wrine. Unine acidify & Acorbic acid	6 -
UU V	1
By injection Amenonium Chloride.	-
	-
Ion-trapping - Acidic drug (Aspirin) reached basic	
/ ' V	
medlum get conised & trapped in the region.	
	300

6	Page No.
()	Date: / /
	P-glycoprofein: Permeable efflux pump. 13 Presence of P glycoprofein decreases the bioavailibity of digoxin.
<u> </u>	5 Presence of P glycoprofein decreases the
0	bioavailibity of digoxlin.
&	
<u> </u>	eg. of Pglycoprofein enhibitor: Quinidene
6	Itraconagole
	Erffhromycin
	Amiodarone
0	(Verapamil)
0	
6	Drug undergoing high first pass meta bolisin on Orally:
	Proprandol
	Salbutainsl
0	Theophylline
	Verapamil
6	Légnocaure
6	Nitrates
6	Quipramine
	no an illat and ada time to be a late of
0	# All niliates goes extensive let pass metabolism except - Isosorbide nitrates.
<u> </u>	except - Goosorvige nigrates.
8	# Partally and drug of anti-of was Forland howarderidal
	# Rectally given drug absorbed via External hemomhoione vein — No 1st pass metabolism If via Internal hemomhoidal vein — 1st pass metabolism occurs. # i.v. — 100% Bio availibility.
À	It via Internal hemorrhaidal vein - let
*	pass motapolism occurs.
-V	# i.v 100% Bio availibility.
- 4	-11
0	
Ô	
0	
•	

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Date: / /	
Henderson Hesselbach equalion:	
pka = pH + log (ionized A) / (unionized A)	
J	•
nears, 50% drugs is in ionised form & 50% " " unionised form	<u> </u>
means, 50% drugs is in ionised form	
& 50% " 2 unionised form	
# $pka-pH=1 \longrightarrow 90\%$ drug in absorbed form- $pka-pH=2 \longrightarrow 99\%$ " $pka-pH=3 \longrightarrow 99.9\%$ "	•
$pka-pH=2 \longrightarrow 99\%$ "	®
$pk_0 - pH = 3 \longrightarrow 99.9\%$	
, . ,	
Bioavailibility curve:	
L	Ø.
Duration of action	©
CMax Therapeulic	250
Raige	
E	
3 / AUC	9

	Ô
Oncet Trax Hime Time	
ù	
Cmax = Maxm plasma conch	
Twax = Time to reach Cmax	
AUC = Area under Curve.	16
# Same drug same dose same dosage forms.	*
# Same drug, same dose, same dosage forms,	
# Same drug, same dose, same dosage forms, (20% -> Bioequivalent.	•
# Same drug, same dose, same dosage forms, (20% -> Bioequivalent.	6
# Same drug, same dose, same dosage forms, (20% -> Bioequivalent.	6

	Tage 140.
<u></u>	Date: / /
-	Orphan drug:
*	- A drug useful for diagnosis/prevention & Ht of rare disease.
Ö	eg: - Fomipizole (4-methyl pyrazole - Alcohol dehydrogenase inhibit
5	Prolamine Sulfate (Antidote of Heparin - Chemical antagonism
9	Pro launine Sulfate (Antidote of Heparin - Chemical antagonism Calcilonin Calcilonin
	Digiband (Antidote for Digoxin)
	Lio/hyronine (Active 73 -> Myxodena coma)
0	Lio/hyronine (Active T3 -> Myxodema cama) > always given \(\bar{c} \) B-blocker.
1	Calcitonin: Useful in Hypercalceuna
	Pagets ds
	Osteoporosis
(4)	diagnosis for Medullary Ca Thyroid.
©	
	# Pétolisant Tiprolisant: Use in Narcolepsy (Orphan drug status).
<u> </u>	(Orphan drug status).
	` / (
•	Escential drugs:
0	- Drug that meet health needs of the majority of
9	population 0 0 0
<u> </u>	- Affordable & Available in all area Always single comp ^d .
	- Always single compd.
	Schedule H - Drug only goven on priscription written
0	Schedule H - Drug only given on priscription written? by medical practioner (Registered).
0	· · · · · · · · · · · · · · · · · · ·
-	
	· · · · · · · · · · · · · · · · · · ·
- Fig.	
<u> </u>	
3	

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Drug distribution: 60% water	
60% waler	
70kg -> 42L	•
	*
4L 10L &	18L
	ellular
	Compartment
0	
# It a drug only in the plasma comb	arlinent •
# If a drug only in the plasma comp it is called as low	Ka 🍝
	• • • • • • • • • • • • • • • • • • • •
Libid insoluble 7	6
It drug is Sourced Johnsed Johnsed	in Planua.
If drug is Jonised -> Stays	in Plasma Compartment
Highly protein bound (suparfuer,
Euge size 2	
Oct of Housedvissis	-
- Role of Hemodylasis	•
# It a drug are to collular country to	
# If a drug goes to cellular compartue high or large	New 17 has
high or large	Vd.
151 and	Ô
Lipid soluble Non ionised	
Free form.	
1000 V1 - 110 1010 1 7050 1	
Large Vd → No role of Dialysis.	•
	4
	<u>~</u>
	-
	<u>~</u>

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Date:	1	1	

	Sais.
-	Drug can't removed by dialysis:
	A = Amphetamine
•	V = Verapamil
*	0 = Opioids, OPC
	I = Impramine (TCA)
	D = Diagonino
	Dialysis = Diazepam (BZD)
	BZD - Very Strong building capacity
_ & _	BZD — Very Strong building capacity Can't remove by dialysis.
	# Loding dose depend upon Vd.
	# For drug having large Vd - for rapid action give loading does
	Volume of distribution (Va) Va = Jotal iv. dose Plasma conc ⁿ /L
6	Va = Jotal iv. dose
	Plasma conc ⁿ /L
	· · · · · · · · · · · · · · · · · · ·
	Loading dose = Vd X Target plasma conch.
- Ö	
6	clearance = Rate of elimination/ Plasma conc ⁿ
	\
	Maintenance dose = CL X Jarget plasma conc ⁿ .
	$t_{1/2} = 0.693 \times \frac{V_d}{CL}$
9	
1	
100	

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Plasma protein binding:	
Plasma protein binding: - Acidic drug in plasma bind c	plasura albumin.
- In rephrotic syndrome or in liver	failure (hypo albumin-
- In nephrotic syndrome or in liver -enia) plasma albumin concr Use low dose of Acid	is low -
· Use low dose of Acid	lic drug.
·	
- Basic drugs are generally buide c	Alpha 1 Acid Glycoprotein
-	
Drug displacement lype of drug eg: Warfarin displacing tolbutain prolein binding site.	interaction:
eg: Warfarin displacing tolbutain	ine from
prolein binding site.	
/ - /	The state of the s
Sulphonamide displacing bilire	ibin from propeir
Sulphonaunde displacing bilire burding site	
·	
BBB:	
BBB absent - Pituitary	· · · · · · · · · · · · · · · · · · ·
Pineal gland	0
Area Prostrema C	ETZ 6
Medean Emines	nce:
Donot Crosses BBB - Streptomye	ne (DOC for Atropine poisoning)
Neostigne	ne (DOC for Atropine poisoning) 🚳
Glycopyrolo	rte (Pre anesthetic medication)
Dopamine	
# All aminoglycosides are ionised	wokas wolecule,
# All aminoglycosides are ionised so never absorbed orally, so r Even though aminoglycosides w	not given orally.
Even though aminoglycosides in	of absorbed in GIT
y v	

•	Page No.
-0	
0	Neomycin – can gwen orally. & Parmonycin –
	4 Parinouyein -
*	IL MONTH MATERIAL OF THE PARTY
	# Speptomycin - 91 in pregnancy
O	# Shepto unicin - GI in pregnancy 6coz it crosses placental barrier & causes permanent deatness.
•	permanent deathers.
25	
	Redistribution: eg: Ihiopentane Sodium
-	eg: this pentane Sodium
6	(Ultra short acting)
	& Rapidly entering Hain & rapidly comes out & distribute to liver, kidney etc.
	Biolransformation (Drug metabolism):
	Consequences of drug metabolism
	De Inaclination (more water soluble)
6 —	· · · · · · · · · · · · · · · · · · ·
-	excreted easily.
(1)	2) Active metabolite formalion from an active drug
0	
	3 Aclivation of inactive drug.
6	U U
-&-	Aclive metabolite from aclive drug:
	<i>D</i>
•	Aclive drug Aclive Metabolite
0	Phenacetin -> Paracefamol
	causes Analgesic nephropathy so withdraw.
*	Cartina
	Couline Cyp2D6 4 In some people it is deficient.
	Dr'azepam -> Oxazepam
ð	0/
Ò	Spironolactore Consenoue.
2	

Activation of ciractive drug Prodrug Active melabolite Levodopa Dopamine Methyl dopa Methyl norepinephrine Endlapril Endlapril Endlapril Dipiveofine Epinephrine Becampicillin Ampicillin Minoxidil Minoridil Sulphafe: Cyclophosphamide Phosphamide mustard. Non synthetic reaction (Phase I reach): O Oridation (M/c Phase I reach) All phase I reach faken care by microcomal enzyme - CYP450 Reduction Reduction Reduction Respective treach Distribution Reduction Respective to the phase interaction of the phase interacti		92	-
Activation of inactive drug Prodrug Active metabolite Levodopa Dopamine Methyl dopa Methyl norepinephrine Enalapril Enalaprilat LAHACE i are prodrug except - Captopril, Lisinopril Dipivestrine Epinephrine Becampicillin Ampicillin Minoxidil Minoxidil Sulphate Cyclophosphamide Phosphamide mustard. Non synthelic reaction (Phase I reach): Non synthelic reaction (Phase I reach): O Oxidation (M/C Phase I reach) All phase I reach taken care by microsomal enzyme - CYP450 Reduction Bycyclization Phase II reach: O Glucusonidation (M/C) - Morphine Sulfate Conjugation Sulfate Conjugation Glycine Glycine (Paracetamol metabolism)	•		
Prodrig Aclive inelabolite Levodopa Dopanine Methyl dopa Methyl novepinephrine Enalapri l Enalaprilat LAHACE i are prodrig except - Captopril, Lisinopril Dipiv estrine Epinephrine Becampicillin Ampicillin Minoxidil Minoxidil Sulphafe Cyclophosphamide Phosphamide mustard. Arug melabolism: Non synthelic reaction (Phase I reach): () Onidalion (M/c Phase I reach) All phase I reach taken care by nucrosomal enzyme - CYP450 () Reduction () Hydro lycis () Cyclization () Decization () Succuronidation (M/c) - Morphine () Sulfate Conjugation () Glycive () Gracefamol metatolism)		Date: / /	_0=
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Methyl dopa Endlapril Endlapril Endlapril Endlapril Endlapril LAH ACE i are produce except - Captopril, Lisuropril Dipi v extrine Epinephrine Becampicillin Minoxidil Minoxidil Minoxidil Minoxidil Sulphate Cyclophosphamide Phosphamide mustard. I arug welabolism: Non synthelic reaction (Phase I reach): Onidalien (M/c Phase I reach): All phase I reach taken care by microsomal enzyme - CYP450 Reduction Reduction Reduction Phase II reach: Gucuronidalion (M/c) - Morphine Sulfate Conjugation Gucuronidalion (Paracetamol metatolism)	Levodopa Dopamine		•
Endlapri l LAHACE i are prodrug except - Captopril, Lismopril Dipi verpine Becampicillin Minoxidil Minoxidil Minoxidil Sulphafe Cyclophosphamide Phosphamide mustard. Arug welabelism: Non synthelic reaction (Phase I reach): (Didalien (M/c Phase I reach) All phase I reach faken care by nucrosomal enzyme - CYP450 Reduction Reduction Reduction Phase II reach: Glucuronidation (M/c) - Morphine Sulfate Conjugation Glycine Glycine (Paracetamol metatolism)		epinephrine	<u> </u>
LAHACE i are produig except - Captopril, Lisuropril Dipive expire Becampicillin Minoxidil Phosphamide mustard. Outloophosphamide Phosphamide mustard. Non synthelic reaction (Phase I reach): Outloolic (M/c Phase I reach): All phase I reach faken care by nucroscomal enzyme - CYP450 Reduction Reduction Reduction Thydrolycis Cyclization Surgelization Phase II reach: Outloophine Sulfate Conjugation Glucuronidalion (M/c) - Morphine Cyclization Phase II reach: Outloophine Phase II reach: Outloophine Phase II reach: Outloophine		, ,	
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Cyclophosphamide Phosphamide mustard. Drug melabolism: Non synthelic reaction (Phase I reach): (Dividation (M/c Phase I reach) All phase I reach taken care by microsomal enzyme - CYP450 (Dividation (Dividat	1 491		er .
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Non synthelic reaction (Phase I reach) (1) Oridation (M/c Phase I reach) All phase I reach taken care by nucrosomal enzyme - CYP450 (2) Reduction (3) Hydrolycis (4) Cyclization (5) Decyclization (6) Glucuronidation (M/c) - Morphine (7) Sulfate Conjugation (8) Glycine (9) Glycine (9) Glycine (1) Glacaronidation (Paracetamol metabolism)			2.1
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(1) Onidation (M/c Phase I real") All phase I reac" taken care by nucrosomal enzyme - CYP450 ② Reduction ③ Hydrolycis ④ Cyclization ⑤ Decyclization ⑤ Decyclization ⑥ Glucuronidation (M/c) - Morphine ⑥ Sulfate Conjugation ⑤ Glycine ⑤ Glycine ⑥ Glycine ⑥ Glycine ⑥ Glycine ⑥ Glycine	Non synthelic reaction (Phase I re	ac"):	À
All phase I reach faken care by nucrosomal enzyme - CYP450 Reduction Hydrolycis Cyclization Decyclization Phase II reach: Glucuronidation (M/c) - Morphine Sulfate Conjugation Glycure Glycure Paracetamol metabolism	(i) midalion (M/c Phase I reach)		45-
enzyme - CYP450 Reduction Hydrolycis Cyclization Decyclization Phase II reach: Officuronidation (M/c) - Morphine Sulfate Conjugation Glycine Glycine Paracetamol metabolism Paracetamol metabolism	With the all week leken const	by wirencomal.	0
@ Reduction ③ Hydrolysis ④ Cyclization ⑤ Decyclization ⑤ Decyclization ⑥ Glucuronidation (M/c) - Morphine ② Sulfate Conjugation ③ Glycure ③ Gurfathione ② Gurfathione ② Gurfathione ② Paracetamol metabolisin	All phase I near funer cons	1	6
3 Hydrolysis 4 Cyclization 5 Decyclization Phase II reach: 6 Glucuronidation (M/c) - Morphine 2 Sulfate Conjugation 3 Glycure 4 Glycure 7 Glutathione 7 Paracetamol metabolism	erzyme - CYP450		
Phase II reach: (i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glytathione (6) Paracetamol metabolism	2 Keduction	,	
Phase II reach: (i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glytathione (6) Paracetamol metabolism	3 Hydrolysis		<u></u> Ô_
Phase II reach: (i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glytathione (6) Paracetamol metabolism	(4) Cuclisation		
Phase II reach: (i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glytathione (6) Paracetamol metabolism	(5) Decure a atraca		
(i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glyfathione (6) Paracetamol metabolism)	Neight 241 Cont		0
(i) Glucuronidation (M/c) - Morphine (2) Sulfate Conjugation (3) Glycure (4) Glycure (5) Glyfathione (6) Paracetamol metabolism)			<u> </u>
2) Sulfate Conjugation (3) Glycure (4) Glytathione " (Paracetamol metabolism)			
(3) Glycure " (4) Glyfathione " (Paracetamol metabolism)	(i) Glucuronidation (M/c) - Morphu	ie	
(3) Glycure " (4) Glyfathione " (Paracetamol metabolism)	(2) Sulfate Conjugation		75
(4) GW fathible / will efter the	(3) Glassing		
	(Paracolamel	metabolism)	
(5) Acetylation (6) Methylation	(4) GW fathione / will extract.		22-
(6) Methylation	(5) Acetylation		
U .	(6) Methylation		
	a		A

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è 🐧	Page No. Date: / /
8-9-	Date: 1 1
0 0	PARACETAMOL
	PHASE 1 CYP 2E1
3	THASE! C XCI
3	N-acelyl beuzo quino (Hepatotoxic
B-0 —	immuno amure (NABQIA) metabolite)
	Phase II Glutallione conjugation
30	Inaclivation
5	70x taxacelowel - N-acetyl cysteine
50-	For paracelatuol - Methionine.
ত ভ ্	1
3**	Beog Glulalhione
50	Beog Glulālhione generalor
00	
	Chronic alcoholec -> More prone for liver damage
<u>_</u> 0	bcoz Alcohol → Ocyp2E1 einducer.
50	# End result of phase II reach - Inactivation.
70	U
	Drug undergoes Acelylalian:
	3 = Sulphonduide / Dapsone. 7
	H = Hydralazine may cause
	H = Hydralazine may cause I = 0 somazid RA, SLE.
	P = Procainamide
	Melhylalion:
(A)	eg: Histamine -> Melhylhistamine Noradrehaline -> Adrenaline
O	Noradrehaline -> Adrenaline.
-	
	- · · · · · · · · · · · · · · · · · · ·

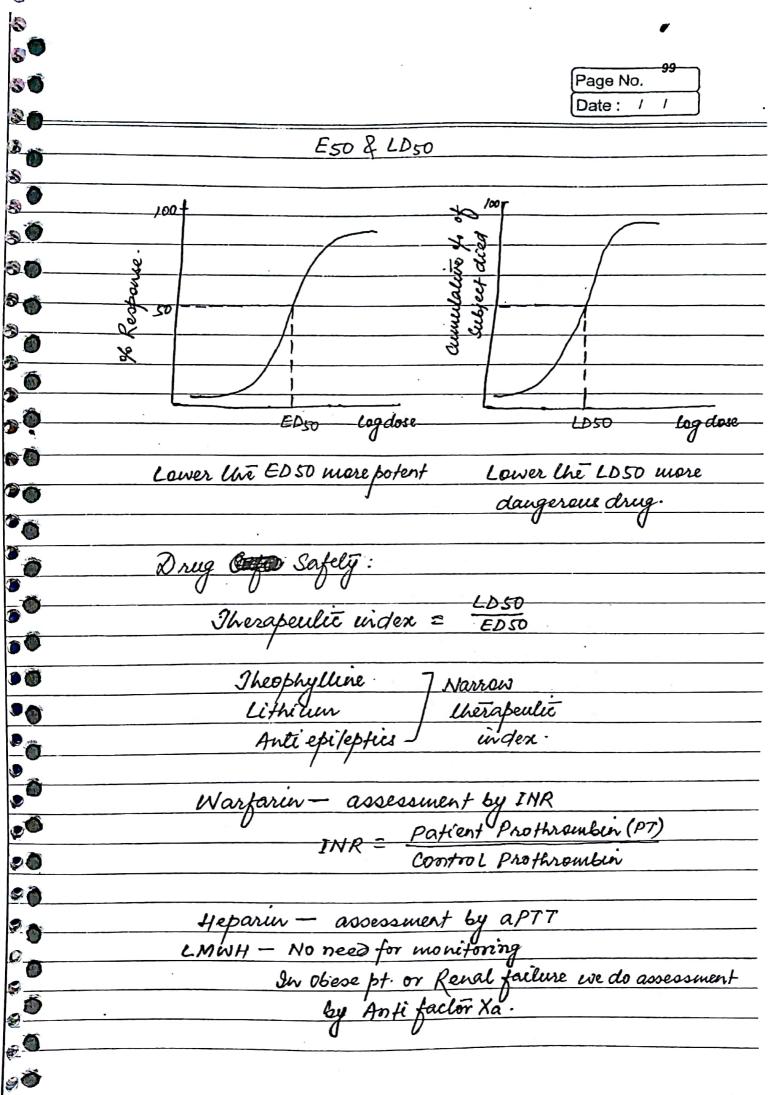
•		ge No.
		le: / /
Microsomal enzym	e:	
Enzyme	Drug	
Enzywe CYP3A 4 (M/c)	Drug >50% of drugs	
•	, , , , , , , , , , , , , , , , , , ,	rphine a
CYP2D6 (2nd)	Codiene → Mon	phine
The Townsites active	CYP2D6	- Cale
CYP2C9	Warfarin	
	0	0
CYP2CI9	Omeprazole mi	efabolism 🍑
•	Omeprazole en	grel
CYP2E1	Paracefamol –	
		NABQIA
	-	•
Cloridogrel: Anti-p	latelet	Ò
Clopidogrel: Anti-p Prod Aclivat	rug	Ġ.
Aclivat	ed to help of cyp2c	19.
	1 0	
Aspirin + Clopidogrel	(prodrug) —	
Aspiruv -	> Causes gastrilis > Omiperazole	•
t/+ -	> Omiberazole	6
Quiprasole show	udn't be given à cli	obidogrel.
- Presented PPI	uldn't be gwen & clu gwen & clopidogrel	
	J. J	<u> </u>
	Paytobsasolo.	
	Pantoprazole Rabeprazole	M .
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
		•
		in the second
		26

	· · · · · · · · · · · · · · · · · · ·	Page No.
	y	Date: / /
	Microsoma	l Enzyme
0	Inducers:	Inhibitors
	G = Griseofulvin	Vitl = Valproate
•	P = Phenyfoin	K = Ketaconazole
		Can = Cinitidine
	R = Rifampicin S = Suroking	Cause = Ciprofloxaciin
0	Cell = Carbawazepine	Enzyme = Ethromycin
	Phone = Phenobarbitone	Inhibition = I soniagid (INH)
6	7 00000 = 7 000000000000000000000000000	Grape Fruit
,	Drug excretion:	
	Drug excrelion: Major source =	Kidney.
0		
0	Net excretion of drug = 9	F+TS-Jubular reabsorption.
	U U	
	- PROBENICID - by inhe	biting
6	•	· · · · · · · · · · · · · · · · · · ·
9	prolong	the action of penicillin.
	1	<i>U 1</i>
90	First order kinelics	
	- Constant fraction	in of drug excreped constant
	enterval of te	ine.
ه ا	- T1/2 constant	
٥	- 97% drug elim	inated after 5 half life.
	-	-
3	$100 \xrightarrow{1/2} 100 \xrightarrow{50} 50 \xrightarrow{1}$	25 3./25.
20		
0	50% of drug excre	eled every 1hr.
S	, U ()	U
8 6		
<u> </u>		
# *		

Page No.	•
Zero order Kineliës:	
- Constant amount of drug excreted constant	
interval of time.	•
- No fixed Tyz.	6
0	
eg: 25 mg of drug, every 1 hr.	
$100 \xrightarrow{lhr} 75 \xrightarrow{lhr} 50 \xrightarrow{lhr} 25 \xrightarrow{lhr} 0$	•
$t_{1/2} = 2hr$	
1/2=1 px	<u> </u>
Common drug undergoing Zero kinetic	
Zero WAATT Power	•
W = Warfarin	•
A = Alcohol	
A = Aspirie	6
T = Tolbulauide.	
7 = Theophylline	
Power = Phenytoin	•
	•
Pharmacodynamics: -	
Receptor medialed MOA	**
Cell memb Receptors.	
	0
ligand gated G-protein Coupled Enzywe Linked.	•
	•
Fastest acting receptor Serpentine Shape	6
Fuiolecule	
- wost aclive unit	
of GPCR is d-unit	佳
	Ò
·	25.
	•

3 14	
9	
5 T	Page No.
	Date: / /
	(GPCR) a) 95 9i -> Adenyl cyclase - CAMP
	M244 (d) (B)
1	PLC-IP3+DAG
*	$M_1, M_3, M_5 \left(\overline{d_1} \right)$
6	
	Enzyme linked receptor: eg: Jyrosine Kinase Receptor be Insulin acling on cell memb receptor
	eg: Jyrosine Kinace Receptor
	Insulin acling on cell memb receptor
0	
	Activale Tyrosine kinase
	√
	Shift GLUT4 from cytoplasm to plasma memb
	√
	Influx of glucase.
1	
) -6-	
	PEGVISOMENT: GH receptor blocker
W	Useful for t/t Acromegaly.
	New RUXOLITINIB: JAK enzyme inhibitor
	New RUXOLITINIB: JAK enzyme inhibitor Useful in Myelofibron's.
	TOFACITINIB: JAK1&3 inhibitor
	Useful in RA.
2	· · · · · · · · · · · · · · · · · · ·
0	
· 🚵	

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Intracellular receptors:	0-0
Intracellular receptors: Drugading Cyto plasuic receptor:	
Steroid hormone	•
Vit D	*
Estrogen	
Progesterane Testosterone	
Drug acling on nucleus: Thyroid h	narmone 5
Thyraid h	rorinone
/	
Log dose response curve:	
	MR
100	Efficacy
8	efficacy
3 50	<u>~</u> _
2 30	ED 50 - Potency
* * /	
ED50	6 ,
1.0 1.3 1.6 1.9	→ 0·2
Log doses	<u> </u>
0.1 0.2 0.4 0.8	1.6
Does (un lout) on an	
Doses (µg/ml) on are	ethinelic scale.
Receptor Antagonism	
1) In the presence of competitive of	antagonist DRC Will be
Shifted paralled to right.	0-1
Shifted parallet to right. Efficacy - Same: 1	ropency > v
(2) In the billing of Nim - competer	ve confagonam DRC WOU
just come down Efficacy -> 1; Poten	Ser - Came:
efficacy -> v ; Pores	
•	



Page No.	•
Date: / /	
Teratogenicity:	- V -1
	0
Preimplantation (0-2 wks)	•
•	•
Implantation (2-8 wks) → More leratogenicity occurs. La Organogenesis. Growth & development (9 wks-9 months)	O
> Organogenesis.	
Growth & development (9wks-9months)	
D Warfarin: causing Contradi Syndrome	6
1 (Jetal dy Chandro dysplasia Pienctata)	•
2) Isotrelinour (VitA) - Teratogenic	
,	(
Lithium - Ebstein Anomaly GI in pregnancy.	
GI in pregnancy.	6
	_ & _(
3 THIOAMIDE:	-
Methinazole 7 Aplastic Culis	5
Carbinazole Choanal alresia	•
Propythio uracil	*
V	6
Bos of strongly binding & plasma protein Less chance of crossing placenta.	- iii - i
less chance of crossing placenta.	<u> </u>
	49
(3) Alcohol - FAS (Felāl alcohol Syndrome)	•
(5) Valproafe - Valproafe Syndrome.	6_
(6) ACE i – Renal agensses	<u> </u>
Fludomelhacin - Premalure closure of duclus arteriosus.	
(3) Cyclophosphanude - Imperforate anus:	1
(9) Busultan & Chlorambucel (Chemotherapy)	
- Induce cleft palate	0
	200

(3)	
S	
(\$) (5)	Page No.
	Date: / /
3	(10) Tologovaling - Bone & toolky dotost (Baku)
3	(0) Tetracycline — Bone & teeth defect (Baby)
3	In mother -> Julminant hepalic failure.
\$ 6	or made of accounting the first transfer of transfer of transfer of transfer of transfer
3 6	So, definitely 41 in pregnancy.
3	1) Ihalidouide — Phocomelia.
	Gategory X drug.
5	Surgery of the surger
	(2) Misoprostol - Useful for aborlion
	(2) Misoprostol - Useful for aborlion > Jeralogenicity -> Moebius Syndrome
	ata development of CN VI & VII.
	(13) DES - Jemale -> Vaginal Ca, hypospadiae
	baby (cin 10 yrs of life) 's Male baby.
	If taken in pregnancy.
	Drug development:
9	Drug development: Pre clinical trials – We follow guidelines
L	CPCSEA = Comittee for the purpose of control & Supervision on Experiments on Amisonals.
	& supervision on Experiments on
	Animals.
6 9	·
20	IAEC = Institutional animal ethics comitte.
9	
0	Clinical trail - Testing on humans.
	Clinical Irail — Jesling on humans. guidelines — GCP (Good clinical practice). HEC = Human Ethics committe.
	HEC = Human Ethics committe.
60	
6 3	

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Phase I: Pharmacokinelics sluidi	es	0 =0 6 −0
Not efficacy.		
Healthy volunteers (20-100)		5
open label (No blinding) - To know maxim tolerable		00
	dose (MTD)	6 —
MTD - Safely & tolerability.		0
Anti-Couras drug by hass Phase I.		0
Anti-Caucer drug by Bass Phase I.		0
Phase II: Therapeulic explorator	y	0
Phase II: Therapeulic explorator both efficacy & safety.		9 9
	-	
100-150 patients		0
· Single blind - To establish therape	ulic efficacy.	0
- Dose ranging & ceilu	ig effect.	0
·		•
Phase III: Therapeulit confirma	lory.	9
· · · · · · · · · · · · · · · · · · ·		9 . Q
upto 5000 pts, from several cent	res	5 _
Double blind		5 —
- To confirm therapeulic	efficacy.	0
- To confirm therapeulic - To establish the value of	drug in relation.	
· · · · · · · · · · · · · · · · · · ·		
Phase IV: Post marketing Surveilla	oue.	
ellical clearance is not requir	ed·	
elhical clearance is not require		
To know rare & long term ad	verse effect.	
V	V	O

0	Page No.
<u> </u>	Date: / · /
*	Phase 0: Micro dosing sluidies.
•	Pharmaco vigilence:
8	Assessing, mailening.
	Reporting
	Maniforing
*	Moniforing Adverse effect.
	UU .
	# Longestacling insulin - Degludec.
6	· · · · · · · · · · · · · · · · · · ·
-	Insulin Preparation
- in	Fast onset & Short acting (Onset 10-20 min; duration-3-4 hrs)
•	Insulin Lospro 7
	Aspart for the of PP glucose.
Ö	Glulisine
Ö	
	Short acling (ouset - 30 min; duralion > 5-8hrs)
	Regular Insulin
	· · · · · · · · · · · · · · · · · · ·
	made of 6 molecule (Hexamer)
_ ©	
6	diner it takes 30 mm.
· 🕉	to reach monomer status.
8	Monomer V
	given 30 min before meal.
	gwen i.v.
· • ·	Use in DKA, Hyperkalemia.
	Intermediate (Onset 1-3hr; duration > 16-20hr)
•	NPH (Isophane Insulin) - Neutral Profamine Hagedon.
<u> </u>	Lente Insulin (30% semilente, 70% ullialente)
,000	

	-
Page No.	7
early mixed c Page No. Page No. Other insulin Date: 1 1	
I onges acling - Glargine (Acidic => pH=4)	
Longer acling — Glargine (Acidic ⇒ pH=4) Detenir	0
	•
Longest acling - Degludec	*
Adverse effect & Hypoglycemia	
Adverse effect & Hypoglycemia Wt. gain.	
Inhalable insulin:	
EXUBERA - Lack of acceptance by pts & physicians.	0
<i>V</i> , <i>Q</i> , <i>I Q</i>	-34
AFREZZA - Latest	•
Ultra rapid (Ē vir 15 muri) FDA approved	3
FDA approved.	6
· · · · · · · · · · · · · · · · · · ·	
[MAD]: Insulin acting on cell memb receptor	
√	
Aclivate tyroseine Kinase	•
Shifting of GLUTA from cytoplasm to plasma memb	6
	6
Suffer x of Glucose.	
Insulin Release:	
For release of Insulin – at least 30% of B-cell are functioning. In Type I DM – imposible to release insulin	*
are functioning.	
In Type I DM – imposible to release insulu	5
	4
All B cells are destroyed.	
	1000

3	Page No.
3 🖲	Date: / /
8	Sulphonyl urea
	Maglitinide
	Rapaglinide
	· Rapaglinide · Nateglinide
	Newer druge for DM:
	GLP-1 analogues:
	r Exenatide
6	' la la company de la company
-122	gwen Ge Liraghelide GE-GIT (Nausea, Venuming auannus)
) — (1)	Taspoglutide Necrotising pancreatitie Albiglutide Wt. loss.
9-0	Albiglutide Wt. loss.
	Dulaglufide FDA approved - Linaglulide
	gwenter obesity. - All obtained from GILA MONSTER (Salwary gland Venom).
	- All obtained from GILA MONSTER (Salivary gland Venom).
_0	DPP4 inhibitors: Oral
	Adverse Sitagliptine -> Excrelion: Renal
	effect Saxagliptine Reval/Hepatic
	· Nasopharyogifis Linagliptine Bile
3 6	· URTI. Vildagliptine Renal
0	Alogliptine.
	•
	# Vildagliptine: SJE - Hepatic toxicity pt. undergo periodic LFT.
	pt undergo periodic LFT.
2	PRAMLINTIDE: Islet Amyloid Polypeptide analog.
20	· Given Yc
9 *	- Given S/c - Approved for Type 1 & 2 DM
D =	
. 6	

•	•	Page No.	0
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SGLT2 inhibitors	•		
Canagliflozii			9
Serligliflozin			
Dapagliflozi	W		6
Dapagliflozi Empaglifloz	in		<u> </u>
100			-
Common SJE - Recurren	nt UTI (BCOZ GO	(ycosuria)	8
Risk of	breast/bladder co	<i>y</i>	
	/		•
C/I - In Renal fo	rilure ·		O
V			O
Drabeles — Ora	l medicalions.		9
· Sulphonyl ureas			•
· Biguarides			0
2/ in stiding dia	nes		6 9
· Alpha - glycoside	rse inhibitors	· .	
· Meglitinides			0
· Bramocriptine			4
· Cholesevelaur.			a
			6 4
Sulp	honylureas		6 4
1st generalion: Tolbutanuide (6.	<i>(</i> .		9
Tolbujanusqe (6.	-12hr)		
Chlorpropauside	(30-60hr) - long	gest acting	
1 14 cause	e SIADH (dilutional)	(yponatremia)	6
2nd generation:	·Cholestatic	Q.	6
(Glyburide) Glibenclaunide	· Jaundice · Disulfiram like	e react	_
Glipizide			
Güzclazide			
Gümepiride			
			0

N.	
3 0	Page No.
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0	
0	Glibenclauvide — Safe in pregnancy. Gliclazide — Antiplate/et, antionidant.
9 D	Gliclazide - Antiplate/et, anti onidant.
9	
0	M/c problem of Sulphand usea - Hupoglucaenia
0	M/c problem of Sulphonyl usea — Hypoglycaemia Wt.gain.
	Wt. gain.
•	Property and the state of the s
	Biguarides: Metformin MOA = AMPK activator
0	MOA = AMPK activator
	4 AMP - activated protein kinase.
<u> </u>	<i>f</i> .
,	Stimulates - Glucose utilisation
	/ \.
0	Cultural Adition
0	Skelefal Adipose wuscle tissue.
0	- 9t is insulin sensitizer.
Ö	
•	Supresses - Glycogenolysis
0	Supresses – Glycogenolysis Neoglucogenesis
0	Jane Jane Jane Jane Jane Jane Jane Jane
0	the Market in The of DOOD
	# Useful in T/t of PCOD
<u> </u>	
0	# Renal root of excretion so GI in Renal failure.
	# Stop metformin 1 day before & 1 day after the Radiocontrast exposure.
	Radiocontrast exposure:
	the state of the s
	# Nocotul cuctoria > +11 at Dadison 17 1 in
50-	# Nacetyl cysteine \rightarrow t/t of Radiocontrast induced renal cell injury.
	renal cell injury.
	# Metformin Reduces Microvascular Macrovascular events.
	Macrovascular events.
O	
-000	

	Page No. 108 Date: / /
ADR of Metformin: GI	toxicity
· Int	hibit intestinal absorption of glucose,
· 6	DADLE VITBIL.
	Č
Metformin causes la	clic acidosis in presence of cardio respiratory failure,
Kidney, Liver or	Cardio respiratory failure,
alcoholisin.	
d-Glucosidase in	hibitors: inhibit carbohydrate
Acarbose	
Voglibose	digestion in Small surfestine.
Migli tol	
	•
- Useful in PP blood	glucose -
YE - Hatulance	
Abdominal dist	tension
Diarrhoea.	
91 - in Renal faile	ure.
, ,	Ã
Theazolidenedia	ones:
PPAR (Peroxisome pr	ones: notiferated-activated receptor)
activation-PPAR of	PPAR & V
1	- Insulin Sensitiser.
Stimulate lipoprofein lipase	· PIOGLITAZONE
Stimulate lipoprotein lipase TGL(VLDL) V	Older druge:
	dram Troglitazone - Hepatotoxic
NAN	drawn Troglitazone — Hepatotoxic Rosiglitazone — CCF

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3 V	
3	109
3	Page No.
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8	PPAR d'agonist: (1794)
	- Me- Life als - Moting use (Gall stone, GB malignancy)
	PPAR & agonist: (\$794) Clotibrate - Not in use (Gall stone, GB malignancy) GE: Myopathy Fenofibrate (Prodrug, longest t/2, \$LDL, & Plasminogen, Wricostinia action, Genfibrozil
	Myopathy Pent (Sure (1 wang, wager, 1/2, 122, 1 carrier action)
	Helafotonicity 18 choft Bridge
9_0	
9 6	
in the second	# M/c S/E Pioglitazone - Wt gaw
9	Macular edema
<u> </u>	Osteoporosis
	Anemia
0	Bladder CA.
	, , , , , , , , , , , , , , , , , , , ,
0	Drug activating both PPAR of & V.
3	Drug activating 60/5 PPAR & & Y: SAROGLITAZAR
Ö	La Abbanuad in the of This Later
	Approved in ge of Newsells
	4 Approved in 4t of Drabeles dyslipidemia
	Statins:
	HMG COA + Acetate
0	HMG COA reductase & Stations
	Mevalonic acid
	• 4-
	Cholestrol V
20	
	# Stalins -> 1 Total Choleslerol
9 0	# Statins -> & LDL (by upregulation of LDL receptor in liver)
•	
	$3/E \rightarrow Myopathy$
785	Hepatofoxic
0	Jeratogenic
	V

S	
9	
6	Page No.
<u> </u>	Date: / /
9	EZETIMIBE: inhibit cholesterol absorption in infestine.
	Bile acid Sequestrauts:
	Cholestyramine 7
6	Colestipol
6	Colesebelan,
<u> </u>	is approved for the of DM.
	MIPAMERSEN: Newer drug
•	Gwen S/c "Once in a week.
- Ö	Useful for lowering cholesterol.
<u> </u>	
0	PROBUCOL: Inhibits LDL oxidation
0	GUGULIPID: VLDL (Not use - Diarrhoea)
Ö	
6	CETP unhibitors: (Cholesterol ester transport protein)
6	TOR CE TRAPIB
6	Dalcelrapib Evacetrapib
	Evacetrapib
	Ana cetrapib.
<u> </u>	protective (Michaelan of Lieunanida transporter inhibitar
-	MTP inhibitor (Microsomal Triglyceride transporter inhibitor)
, 6	LOMITAPIDE
	AVASIMIBE: Inhibit conversion cholesteral to
	Cholesterol ester.
	ACAT-1 inhibitor.
	- 7CH + WOUNTER
0	
. 6	
3	

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Antilhyroid drugs:
Histology of thyroid gland -
Steps of Synthesis:
D Godiële upfake
2) Oxidation of vodine & formalion of dodine
3) Organification (Iodine + Thyroglobulin)
(a) Coupling MIT+DIT = To
$\frac{1}{1} \frac{1}{1} \frac{1}$
Stored in follicle for 3-4 days.
THIOAMIDES: Rapid control of hyperthyroidism
r. Propylthiouracil (also inhibit peripheral conversion
· Carbimazole (Prodrug) · Methimazole (Prodrug) active form
Melhimazole Mactive form
- inhibit synthesis of 73 & 74 - inhibit formalion of new thyroid hormone - lag period of 1-3 wks.
- enhibit formation of new thyroid hormone
- dig period of 1-3 WKS.
M/c S/E of Carbunazole & Melhimazole: Maculopapular rash (4-6%)
Agranulocyfoeie (0.1-0.5%)
Agranulocytosis (0.1-0.5%) * Severe Lepatitis - PTU
Causing teratogenicity — Jetal aplastic cutie Choanal alresta.
Hepatotoxic - PTU
PTU - Used in emergency hyperthyroid crisis.
- may be safe in pregnancy

6	
	Page No.
S	Date: / /
<u> </u>	LUGOL'S IDDINE:
0	
	MOA - Inhibits release of 72 & T4 from follicle.
•	- Partent acting antithuraid drug.
3	- Fastest acting antithyroid drug. - Used in post-op preparation. - Reducing vascularity.
	- Roducina macularitu:
	n enury verseway
	Ste- lodism - Acre form skin rash.
•	. 0
•	Peripheral conversion of Ty-T3 inhibitor:
0	B-Blockers 7
	Amiodarone By inhibiting 5-DE
•	Amiodarone By inhibiting 5-DE Propyl thio wail godinase.
0	De namelha zone
	Ipodate
	Iodide uptake inhibitor:
	POTASSIUM PER CHLORATE
*	THEOCYANATE
	- Used in the of iodide induced hyperthyroidism
0	
	Radioiodine therapy: $I^{131} \rightarrow t_{1/2} = 8 \text{ days}$
	$I^{131} \rightarrow t_{1/2} = 8 $ days
.0	La emits 2 rays (Y
	B
0.0	Penetrating power = 0.5-2 mm.
9-6	# Y-Ray useful for diagnostic purpose
	# Y-Ray useful for diagnostic purpose B-Ray " " Therapeutic "
© 0	, <u> </u>
	# 41 - Prequary, young children, Ophthalmopathy.
.0	# C/I - Pregnancy, Young children, Ophthalmopathy. # Not useful for the of Medullary CA thyroid.
La	

	Date: / /
Newer drug for T/t of Medullary Ca	thyroid:
LENVATINIB-BTC	
VANDETANIB - MC	
	© _ •
# Non- thiroid drug causing Hypothy	proidesur:
# Non-Ingroid drug causing Hypothy LITHIUM (Stop release of Tol)	1g from follicle)
AMIODARONE 7 Linking Converse	md Tara Ta
AMIODARONE] (inhibit conversion PROPRANOLOL]	(1)
ETHIONAMIDE] inhibit synthesi	<u>. </u>
PAS J Com sor synthesis	a
SODIUM NITROPRUSSIDE - inhibit	uptake of Sodide.
`	
Growth Hormone Release inhibite	or
- for t/t of Acromegaly	6
OCTREOTIDE 7 S/C	
LANREOTIDE J	
GH Receptor inhibitors -	
PEGVISOMANT - S/c	
D2 avalogue -	
BROMOCRIPTINE 7 oral	
CABERGOLINE -	
Octereotide - 40 times more poten	t than Somatostatin 6
longer acting - 12h	<u>v.</u>
Given (S/c) or U.V.	
Never orally.	
Uses - Acromegaly	
Carcinoid [Diarrhoea]	
Portal HPN (Bleeding es	oprageal varices)
	•

•		Page No.
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	SJE - Gall Stone	·
	Vit By deficiency (Me	galoblastic anemia)
	Vit B12 deficiency (Me Rarely DM also.	
6		
-0	Dwarfism: T/t	
	GH releasing factor analy	gue:
_	SERMORELL	W .
	HEXARELIN	
	TESAMORE	LIN
_ _	4 → 70	r lipodyskophy in HIV pt.
-		& Abdominal fat.
-	GH analogues	
6	SOMATREM 7 also	used in - AIDS related wasting
•	SOMATROPIN	Turner Syndrome.
	•	Pituitary dwarfisur.
	S/E – Insulin resistan	e - Type 2 DM
	1 ICT.	
•	→ To ru	le out Papiledeura undus exacu ^a
	$\rightarrow \mathcal{I}\iota$	undus exacu ⁿ
		·
20	# Analogue of IGF + IGF be MECASERMIN (S/c)	inding protein 3
a	MECASERMIN (S/c)) ' ' \
, <u>o</u>		to maintain stability.
	SE – Hypoglycemia	
3		
	Ulerus: OXYTOCIN	
9	• 1 force/ frequency of co	entraction.
(C)	1 contractility to fund	us & body, lower segment
	not contracted unlike	ke ergometrine &
	methyl ergometrin	Ne.
<u> </u>	· Useful in induction of	tabour.
_ ~	·	

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Date: / /	= © = (
# Control post parlium hemorrhage # Useful in ejection of milk.		7
# Vseful en ejection of wilk.		1
	•	
ATOSIBAN - Oxyfocin Receptor Agent Antagonist.	6	
		4
Tocolytic of choice in heart ds - Mgso4	_ <u>~</u> _	1
	•	
ZOLENDRONATE — Bisphosphonate given i.v. once in a year DOC for postmenopausal osteoporosis.	6	
once 🕈 in a year	0	
DOC for postmenopausal osteoporoxis.		ű
		_
NATALIZUMAB - Useful for Multiple sclerosis		
NATALIZUMAB - Useful for Multiple sclerosis given once in a month.	<u> </u>	1
	•	
MIPOMERSEN – I cholesterol level gwen s/c once en a week.	6	9
gwen s/c once en a week.	3	
DALBAVANCIN - Glycopephide		
Antibiotecs	•	
Give once in 6-10 days.	6	1
Antibiotics Give once in 6-10 days. Single dose act 6-10 days	Ö	
· · · · · · · · · · · · · · · · · · ·		D
·		
	•	2
	•	
	6	1
		9
	•	
	-	

(3)	
*	
S	Page No.
6	Date: / /
A	Drugs for Osteoporosis
	Drugs inhibit Osleo clast:
9	Bisphosphonates
0	Drugs for Osteoporosis Drugs inhibit Osteo clast: Bisphosphonates L. Doc: Zolen dronale
3-0	
0	Estrogen & SERM Cinacalcet
	Calcito nin
	This ride diurelies
	Thiazide diurelies Denozumab - Rank L antibody. Monoclonal antibodies
	> Monoclonal antibodies
9 🖤	Drugs promoling osteoblast:
9 🚳	Drugs promoling osteoblast: Calcilirol (Aclive form of Vit D) Androgens & Anabolic steroids
9 6	Androgene & Anabolic steroids
	. Calcium
	Parathormone
3	(hPTH 1-34) → leriparatide.
90	↓ → PTH analogue
9 10	
90	long term there we Detenessence
9 %	long term therapy cause Osteosarcoma.
	STRONTIUM RANALATE
	4 Dual action , promoting extensions
.0	→ Dual action promoting osteoblast inhibiting oxteo clast-
20	ZOLENDRONATE:
S. D.	- Anti osteo clastic activity
	- Interference on mevelonate pathway-
	antilumour activity (CML)
	- Fasteracling.
0	- DOC in Hypercalcemia (Osfeonecrosis of gaw. - Also used in Pagets ds.
	· · · · · · · · · · · · · · · · · · ·

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		Date: / /	
- Less venaus	irritans	L	
– Less venous – Renal löxie	îty.		
	0		0
S/E - · Ihrombophlebit	લ		(6)
· - During in	fusion 7	ever+Chills	
· - During in	Infusion	reach"	
· Nephrotoxicity.	0		70
 Nephrotoxicity Osteoporosis 	1 gaw bon	e.	•
1.) 0		•
# M/c drug for o stere	red induc	ed osteoporosis	
# M/c drug for o stere	Bisphos	phonate.	
# Oftenecrosis of Neck	of tenuer	- S/E of Steroid.	-0
	00	0	•
STEROIDS:			٥
1. GLUCO CORTICOIDS:			6
CLASS A → Short acling (2	uralion	<12hrs)	
- decorticoid	Gluco'	Mineralo	•
Max winer Hydrocortisone	Í	(1)	0
Corlisone	0.8	0.8	8
Max minerals activity Hydrocortisone Corlisone (Least potent G)			
			as .
CLASS B -> Intermedian	te aclina	(duration [2-16 hrs)	
Prednisone	4	0.8	•
Preduisolone	4	0.8	6
Methyl prednisolone	5	0.5	
Methyl prednisolone Triancinolone	5	0	
Deflazacort	5-6	0	-
. 0			

Page No. 119 ClASS C: Langer acting (> 36 hrs) Paramethasone 10 0 Belamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Max*** G) Mineralocorticoids: Natural. Addosferone 0 3000 Synthetic " DOCA 0 2D Fludrocortisone 10 25D # Max *** glucocorficoid action — Dexamethasone Max *** unineralocorticoid action — Addosferone G & max mineralocorticoid action — Addosferone G & max mineralocorticoid action — Addosferone Sea to max mineralocorticoid action — Addosferone Sea to max mineralocorticoid (No mineralo) — TPDB Selective glucocorticoid (No mineralo) — TPDB Selective Mineralocorticoid (No mineralo) — DOCA	S)			v
Page No. Date: 1 1 CLASS C: Longer acting (> 36 hrs) Paramethasone 10 0 Betamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Max ^m G) Mineralocorticoids: Natural. Aldosterone 0 3000 Synthetic 20 Fludrocortisone 10 250 # Max m glucocorticoid action — Dexamethasone				440
Paramethasone 10 0 Belamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Max ^m G) Mineralocorticoids: Natural Aldosferone 0 3000 Syn/Kelic ? DOCA 0 20 Fluctrocortisone 10 250	9			Page No.
Paramethasone 10 0 Betamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Maxim G) Mineralocorticoids: Natural. Aldosterone 0 3000 Synthetic 7 DOCA 0 20 Fludrocorticoid action — Dexamethasone H Maxim glucocorticoid action — Dexamethasone	3_6			Date: / /
Paramethasone 10 0 Betamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Maxim G) Mineralocorticoids: Natural. Aldosterone 0 3000 Synthetic 7 DOCA 0 20 Fludrocorticoid action — Dexamethasone H Maxim glucocorticoid action — Dexamethasone		CLASSC: Longer ac	ling (>361	fors)
Belamelhasone 25 0 (Most potent G) Dexamelhasone 30 0 (Max G) Mineralocorticoids: Nalural Aldosferone 0 3000 Synthelit 2 DOCA 0 20 Fluctrocortisone 10 250 # Max m glucocorficoid action — Dexamelhasone	3	The state of the s		
Belamethasone 25 0 (Most potent G) Dexamethasone 30 0 (Max ^m G) Mineralocorticocds: Natural Aldosferone 0 3000 Syn/Kelic 2 DOCA 0 20 Fluctrocortisone 10 250 # Max m glucocorficocd action — Dexamethasone	9	Paramethasone	10	0
(Most potent G) Dexamelhasone 30 0 (Max ^m G) Mineralocorticoids: Nalinal. Aldosferone 0 3000 Synthelia 7 DOCA 0 20 Fludrocortisone 10 250 # Max m glucocorficoid action — Dexamelhasone			25	
Dexamelhasone 30 0 (Max ^m G) Mineralocorticoids: Nalvial. Aldosferone 0 3000 Synthelic : DOCA 0 20 Fludrocortisone 10 250 # Max m glucocorficoid action — Dexamelhasone	_©			
Mineralocorticoids: Natural Aldosferone Synthelic DOCA Fludrocortisone 10 250 # Max in glucocorficoid action — Dexamethasone			30	0
Mineralocorticoids: Natural Aldosferone Synthelic DOCA Fludrocortisone 10 250 # Max in glucocorficoid action — Dexamethasone				
** Natural. Aldosferone 0 3000 ** Synthetic 5 ** DOCA 0 20 ** Fludrocortisone 10 250 #* Max in glucocorficoid action — Dexamethasone	•			
** Natural. Aldosferone 0 3000 ** Synthetic 5 ** DOCA 0 20 ** Fludrocortisone 10 250 #* Max in glucocorficoid action — Dexamethasone	•	Mineralocorticoids:	•	
Synthelit DOCA Fludrocorlisone Fludrocorlisone Fludrocorlisone # Max in glucocorticoid action — Dexamethasone				
Synthelit DOCA Fludrocorlisone Fludrocorlisone Fludrocorlisone # Max in glucocorticoid action — Dexamethasone		Aldosterone	0	3000
# Max in glucocorficoid action — Dexamethasone	•			
# Max in glucocorficoid action — Dexamethasone		· Synthelia		2
# Max m glucocorficoid action — Dexamethasone		DOCA	0	20
# Max m glucocorficoid action — Dexamethasone	2			
# Max " glucocorficoid aclien — Dexamelhasone		Fludrocorlisone	10	250
# Max in glucocorficoid action — Dexamethasone Max in univeralo corficoid action — Aldosferone G & max min — Hydrocortisone Least potent G — Cortisone Most "" — Betamethasone Max in topical action — Triancinolone Selective glucocorficoid (No mineralo) — TPDB Sefective Mineralocorficoid (No Gluco) — DOCA				
# Max m glucocorficoid aclion — Dexamelhasone Max m univeralo corficoid aclion — Aldosferone G c max min — Hydrocorlisone Least potent G — Corlisone Most "" — Betamethasone Max m topical aclion — Triancinolone Selective glueocorficoid (No mineralo) — TPDB Selective Mineralocorficoid (No Gluco) — DOCA		4		·
Max m univeralo conficoid action — Aldosferone G E max min — Hydrocorlistane Least potent G — Corlistane Most "" — Betamethasone Max m topical action — Triancinolone Selective glueocorficoid (No mineralo) — TPDB Selective Mineralocorficoid (No Gluco) — DOCA		# Max " queocorficoid as	clion - Dex	amelhasone
G & max min — Hydrocorlisone Least potent G — Corlisone Most 17 " — Betamethasone Max topical action — Triancinolone Selective glueocorficoid (No mineralo) — TPDB Selective Mineralocorficoid (No Gluco) — DOCA		Max m univeralo corfice	uid action —	Aldosferone
Least potent G - Corlisone Most "" - Betamethasone Max ^m topical action - Triancinolone Selective glueocorticoid (No mineralo) - TPDB Selective Mineralocorticoid (No Gluco) - DOCA		6 č max min - Hyd	drocorlisõne	
Most " " - Betamethasone Max ^m topical aclien - Triancinolone Selective glueocorficord (No mineralo) - TPDB Selective Mineralocorficord (No Gluco) - DOCA	2	least botent G - Con	esone	
Max ^m topical aclien - Triancinolone Selective glueocorficoid (No mineralo) - TPDB Selective Mineralocorficoid (No Gluco) - DOCA	> 0	Most 19 " - Be	tamethasa	1e
Selective glueocorficorid (No mineralo) — TPDB Selective Mineralocorficorid (No Gluco) — DOCA	. 6	Marin topical action	- Toranci	unal on e.
Selective Mineralocorticord (NO Gluco) - DOCA	. 0	Colocline aluencosticos	d (No winer	elo) - TPNR
		Selective Minosalna	cticoid (NO GI	uco) – Doca
			7,000-7,700 70	
	7			
	•			
	7		,	

Page No.	
Date: / /	*
Steroid - Antienflammalory	0=
Anti cancer Immuno suppressive	6
	6
	-
Anti-inflammalory action of steroid - By in hibiting Phospholipase Az	
ZILEUTON - inhibit lipooxygenase	•
Not in use	•
Severe. hepatotoxic	<u> </u>
NSAID - Inhibit Cyclooxygenase.	
	8
Sterood having anti-cancer activity:	
- Apoptosis of 7& B cells - Vietul for Lymphoma.	•
- Useful for Lymphoma.	6
Steroid having Immuno suppressive action: - Inhibit IL-1 & IL-6	
- Inhibit IL 1 & IL-6	E
- Also catabolism of EgG.	
	#
Melhyl prednisolone - Used in pulse therapy.	Õ
ACTA	
Cosyntropin - Infantile Spasm.	
	4
	6

(2)	
S	Medulla - Pheochromocytoma Page No. 121
3-0-	Adrenal corlex - Cushing Syndrome Date: 11
b 6	Drug useful for t/t of Cushing Syndrome:
3	Metyrapone (HB-hydro nylase)
2	Ketoconazole
	Mitotane 7-chemical aderenalectomy
炒−© −	Auuno glutethiamide]
5	Trilostane
30	Eto midate (General anesthelic)
7 6	DA 440 TO
	PASIREOTIDE - Somatostatin analogue
	useful in t/t of Cushing Syndrome.
8	V
9 0	Erectile dysfunction: O Selective PDE5 blocker:
90	
9	Sildenafil Vardenafil
	Tadalafil - longest acling
	Avanafil
. 0	· PDES enzyme is involved in metabolism of CGMP.
	· PDES blocker by blocking CGMP metabolism
	causes vaso dilation
(P)	Aculé adverse effect - Headache
.0	Flushing
	Hypotension
6.0	Hypotension Nasal Congestion
30	· ·
20	Long leren (Chronic) Metapy causes Blue vision defect.
	√
	blocking PBE6
* O	
- A	

Page No. Page No.	0	6
Drug unteraction 6/w Sildenafil & Nitrates:	-0-	
Nitrates shouldn't be given à Sildenafil		6
Drug interaction b/w Sildenafil & Nitrates: Nitrates should n't be given c Sildenafil bcoz risk of severe hypotension.		•
	6	0
Other drug for erectile dysfunction:		•
Aponorphine (D4 agonixt)	-	©
Trazadone (Atypical antidepressant)		•
Avaptadil (VIP-Vascactive intestinal polypeptide)		0
Ketanserin (Serotonin antagonist)	0	6
Nattrexane (Opcid Antagonist)	_ Ò _	ó
Grang Ginseng	-	•
kava		á
Gingko	•	0
		
Injectable therapy for Erectile dystunon:	0	õ
Jujectable therapy for Erectile dysfunch: Alprostadil		0
Phenfolanuire		6
Papaverine.		The state of the s
Drugs useful for t/t - Premalure ejaculation.		3
- SSRI		
- PDEV whiletors		
For delayed orgasun:		
Amantédine		
Buspirone	6	2
		2
Cyproheptadine. For sexual stimulation:	-	2
- Yohientsine		3
Zinc		2
Ginkgo biloba	6	3
Ginkgo biloba Governg Ginseng.		2
U U J		

	•	Page No.
§ 🔵		Page No.
20		
	ANTI ANGINAL DRUGS	
A	Stable Augina	·
3	Stable Angina Unslāble Angina Vasospastic angina (Printz melāl An	
	. Vaso spastic angina (Printz melāl An	quia) (variant arguia)
6	Cause (Reduction in 02 supply	!
	Coure (Reduction in 02 supply 1 02 demand.	
0		
0	Anti-anginal drugs	
	Vasodialalor Cardiae	depressant
	Vasculuto Carata	99.0000
©		B-Blocker
-	-Nitrates CCB	βρασιο
•		
0	K [†] channel opener	- / - \
-6	Pathway of FA oxidation inhibite	ers (pFox)
-	# Jatty aciq	
		IDINE, RANAZOZINE
9	Free radical	4
0	. 1	Anti-oxidant Na+channel blocker
	Cytoto xicity to uyocardial cell	
9		
00	Angina Arrhythmia	
	5/E - GI toxicity (M/c)	
<u> </u>	Thrombocytopenia	
	Lever dystunch	ale i Produce souther
	Risk of movement disorder-	- y en rankussenion
	97 - paragalation prolongation	n -
	Excrelian by Renal pathway - C/I	in Kenal facture
÷ 🔞	<i>d</i> ' / <i>u</i>	

Page	N	lo.		124	
Date	:	1	1		

NITRATES	
Short acting Intermediate acting Longacting Longest actin	<u>.</u>
· GTN · Isosorbide · Isosorbide · Pentaeryth	/
'	
· Augl Nitrite divitale mononitrate tetranitrate (Shortest) (2-3 hrs) (6-10 hrs) (8-12 hrs)	
# For acule attack - GTN, Isosorbide divitate	
3/2	
Least 18+ pass metabolism - Isosorbide mononitrate.	
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
SIL drug – Lipid soluble Non ionised	
Non ionised	
	6
Sk in rasher - Pentaerythulol tetranilrale	9
MOA of militates:	
- Nitrates acting on Cisteine receptor, they	0
MOA of nitrates:  - Nitrates acting an Cisteine receptor, they release NO. NO activate Guanyl cyclase.	8
Selease 140 140 mount of good of some	•
Vasodilation 9-CGMP (2nd Messenger)	) -
PDES 1	
Sildenafil SMR	4
NID in data dont - direct Quantity and and addition	
NO independent - direct Guanyl cyclase activators:	-
RIOCIGUAT	6
CINOCIGUAT	
- Useful for tft of Prunary pulm. HTN.	d.
· ·	
# CGMP normally undergo machination by PDES enzyme So, PDES inhibitor = Sildenafil group of drug.	e - 🥌
So, PDES inhibitor = Sildenafil group of drug.	
	22

1	•
	125
	Page No.
<u></u>	Date: / /
	# Nitrates may get tolerance due to down regulation of
	WD ACK-Law C
•	Max ^u Jolerance — i'v infusion & Trandermal patches.
•	& Trandermal patches.
_	Action of Nitrales:
	Visceral smooth muscle - Relaxed
	- Watel for the Bilianu colic bain
1	Useful for t/t of Biliary colic pain  Useful for t/t of Achalasia Cardia
6	- Useful for ye of Afeniciased Edited
	Vascular suvolt nuscle - Vasodialalor
	Vasatati santata vasatatator
	headawi aulin Vanadialala
	predominantly Venodialator - Peripheral pooling of blood
<u> </u>	- Peripheral pooling of blood
	<u>-</u>
<b>-</b>	maxim & un Preload.
0	mild & of afterload.
	V
	V Oz demand
	· · · · · · · · · · · · · · · · · · ·
<u></u>	Reduce angina
0	
. 6	Uses: Cardiac uses: Anguia
	MI
9 69	CCF
5 0	Non-cardiac uses: Biliary colic fain
-0-	Achalasia cardia
0	Cynède poiso ning.
	Cynéde poiso ning.  Li By formation of  Methemoglo binemia
	Methemoglo si nemia
, 0	U
<b>6</b>	•

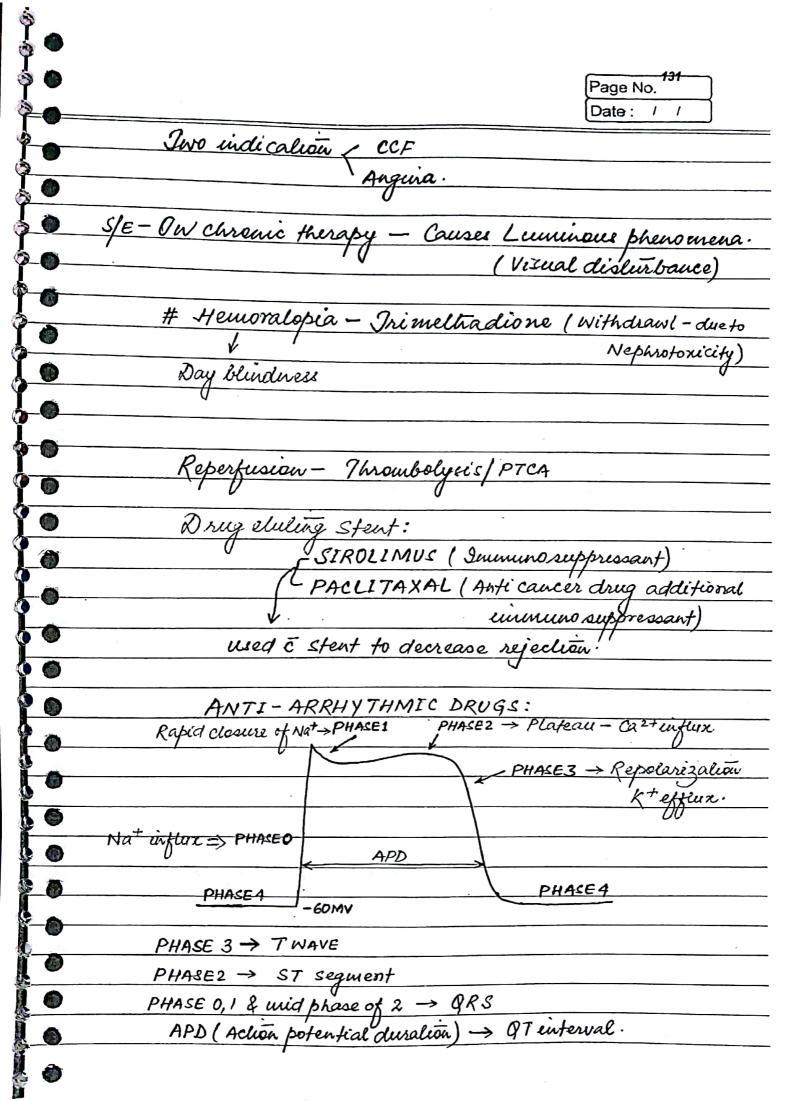
Page No.	
Date: / /	=0
ADR - Thrombing Headache (M/c)	
Hypotensian	•
Reflex Tachycardia (due to Sympathelic strumpation	
Jolerance So add B-blocker.	
Solerance So add B-blocker.  Melhe moglobinemia  Rashes	<b>3</b>
Rashes	
	•
# Drug viler action 6/w Nitrates & Sildenafil:	
# Drug unter action b/w Nitrates & Sildenafil:  - Not combined together bcoz it cause	
severe hypotension.	_0
Gap of 8-10 hrs should be maintained.	
'   0	
Sodium Niltoprusside:	•
- Only i.v. roule	
- Short acling <10 min	6
- Short acling <10 min Indicalion - Hyperfensive emergency Acute aprlic dissection.	
Acute aorlie dissection.	-
	•
- Drug is sensilive to light	
⇒ Cover € black towel.	
- Containing cyanide ( Thiocynate)	_0
	-
Risk of Hypothysoidesin	
Risk of Hypothysoidesin - UI in pregnancy.	•
_ / / /	8
B-blockers:	6
· I Works load of cardiae.	
· CII in imposit ou and.	-
· Abrupt withdrawal ppt anguing.	***************************************
· B-blocker + GTN = to prevent Reflex Pachy cardia.	,
<ul> <li>Abrupt withdrawal ppt anguina.</li> <li>B-blocker + GTN = to prevent Reflex Pachy cardia.</li> <li>Controls catecholamine activity</li> </ul>	
<i>→</i>	

	Page No.
	Role of B-blocker on MI: Date: 11
	Reduces size (zone) of infarction
	Anti arrhythenic aclien
	Reduces size (20ne) of infarction  Anti arrhythmic action  Reduces mortality.
9	(
<b>2_6</b>	CCB:
D 00	Chemical Type Chemical names
	Chemical Type Chemical names  Phenylalkylamines Verapamil
<b>**</b>	
	Benzolhiazepines Diltiazem.
9-0	1,4-Dihydropyradines Nifedipine (DHP) Nicardipine
0	
0	Ni modipine Ambodipine
3	
	Nitrendipine (NO releasing property)
<b>9</b>	
<b>9</b>	# Nevibolol 7 B-blocker having NO releasing property.  Nepradiol -
9	
9 0	DHP:
30	Site of action - Peripheral blood vessel
	<i>\</i>
0	Vasodilatation
	- Useful for Ht of HTN & PVD.
<b>3 3</b>	
<b>P</b> 5	La Maximally arterial dilatation.  La maximal in PVR.
0	ADR -> Hypotensian
	Reflex Tachyeardia
	Ankle edema (Ambolipus maxm cause Ankle edema)
	Constipation
a 🙈	

Page No.	•
r long acting Date: 11	
# Nicardipine 7 Approved in Hypertensive emergency.	-0-
# Nécardipine - Approved in Hypertensive emergency.  Clevidipine - gwen i.v.  Short acting	
Siest acting	
2 Grozi teterig	6
Non-dihedrophysidings: Verabamil	
Non-dihydropyridines: Verapamil Dilfiazem.	
Verapauil:	
Site of aclien: AV node (Most imp.)	1
Site of aclien: AV node (Most imp.)  SA node	
SH Mage	•
Action - Braducardia	
Aclion -> Brady cardia -> Anti arrhythmic agent.	-
- That white agent.	9
1100 - Altal Prophyson bulling (AT)	<b>(1)</b>
Uses - Alrial Grachyarrhythmia (AT)	
Uses – Altial Irachyarrhythmia (AT) SVT (Sapra Ventricular Jachyarrhythmia)	72
	-
ADR - Bradycardia  Block AV conduction - Prolongation of.	9
H	
PR interval.	
Ankle edema	17.0
Constifation	_
0/5	
91 - WPW Syndrome.	
2	_
Dilliazeu:	
User - HTN	
User - HTN  Angina  Angina  Angina	-
Arrhythmias (SVT/AT)	
<b>U</b>	
CCB having anti-arrhythmic property ( Diltiazen - antianty themic	
Dilfiazen-thuic	

	<del></del>
<b>\$</b>	Page No. 123
3	Date: / /
9	N'imodipine: Cerebro relective CCB
	Useful for the of Sub-arachaoid hemorrhage
	(SAH)
<u> </u>	The purpose of given Nimo dipine is to prevent Reflex is chemic damage.
	FASUDIL - RhO Kinase inhibitor
	Use - SAH
<b>6</b>	PHT ( Pulm. HTN)
	Angina.
<b>y</b> —•••	, , · g
9	CCB useful in Probhulaxis of Missauine - Manahamil
0	CCB useful in Prophylaxis of Migracine — Verapausil Fluorasizaire
•	
	T-lube of CCB
	T-lype of CCB Na+ Channel blocker
9	Anti-oxidant.
	And on and
. 6	K+ channel obeness:
	K+ Channel openers:  Hydralazine 7 - Arteriolar dilator  Minoxidit - Anti-hypertensive  Diazoxide
	Alinovidil - Anti-huperlousive
	Diazoxide
0	Wango ange
	Nocos ou del lauti annial
	Nicorandel (Anti-anguial)
	Adenosine (PSVT) > DOC
	779 EUWS (878 (PSV 17 > DOC
0	Abanyan di 1 : Ala salas aire tartes la
0	Nicoraudil: NO releasing property
	Anti-anginal
	$\gamma E \rightarrow Apthous$ ulcer
	Headache

Page No.	•
Date: / /	
Hydralazure:	
- The of HTN-ensergency in pregnancy	
- The of HTN-ensergency in pregnancy - NO releasing property - Metabolism by Aceloglation	•
- Metabolism by Acelaylation	•
To the second se	
TS = Sulphonnuide	**
H = Hydralazine	(C
I = Isoniagid	•
LP = Procainamide.	
- Cause RAJSLE	
Minoxidil:	
- Prodrug	
- Aclive form -> Minoxidil Sulphate.	
Uses -> HTM	
Alopecia	
Diazoxide:	
- causing hyperglycemia by inhibiting insulin release from B-cell of pancreas.	
0 / 0/	
Use - HTN	
Use – HTN Insulinoma	734
Phenytoin – also inhibit relase of insulin cassage Poor man drug for Insulinoma.	
Poor man drug for Insulinama.	<b>6</b>
IVABRADINE -	根
	4
- Causing Bradyeardia Na+ Channel blocker (Ifunny Current)	
- Reduce HR.	



•	Page No.
# Any drug having K+ channel blocker  — Cause QT prolo	g property
- Cause QT prolo	ngalion
· Class Ia & class III thug h	aving K+ channel
· Class Ia & class III thug h blocking property cau	sing QT prolongation.
	<i>y</i> , <i>v</i>
Classification: Vaughan Williams	
Classification: Vaughan Williams Class I - Na+ Channel blocker	
Lass IA, IB, IC	
Class II - B-blocker	
•	
Class III - Ktchannel blocker.	
Class IV - CCB	
Unclassified & Miscellaneous	agent
0	V
Adenosine	
Atropine	
Digoxun	
Magnesium Si	alfate
KCl	
Class IA:	
- Block Nat Channel + K+ Chan	nel block
- Having risk of causing 97 pr	olongation.
Eg: Quinidine 7	V
Procainamide Anti vagal all	lion
Disopyramide.	
10	

۲ _	
<b>3</b> 🚳	
<b>3 6</b>	Page No.
20-	Date: / /
	Quinédine -
	Quinédine - Origin - Cinchona bark
<b>9</b>	12 Sumblam - Ma C. 'Al.
	La Symptom - Cinchonism
3 6	Tinni fus
	S/E -> Diarrhoea
•	Hypotensian (Bcoz d blocking property)  Hypoglycemia (Bcoz Insulin releasing property)
. 0	SMR
-0-	Ihrombocytopenia.
	Ihrombocytopenia.  Drug interaclion: Quinidine + Digoxine Quinidine interfare renal excretion of Digoxin.  :. aggravating plasma level of Digoxin
	Quinidine enterfare renal excretion of Digozin.
	: aggravating plasma level of Digoxin
•	
<b>3</b>	:. Digozin toxicity.
	· · · · · · · · · · · · · · · · · · ·
	Procainamide:
9 💖	S/E - Undergo metabolism by Acetylation SLE.
	SLE
	Disopyramide:
	Highest anticholinergic aclien.
9	Dry woult, constipation, Retention of wrine.
	Not safe in elderly male E BPH.
<b>5</b> 0	U U
	Claso IB:
	Na+ block + K+ opening.
	- Never causes QT prolongation.
	Na+ block + K+ opening.  - Never causes QT prolongation.  Site of aclien -> Mainly acting on Bundle of HIS.  Rt. Bundle, Lt. Bundle & purkinje fibre.
	Rt. Bundle, Lt. Bundle & purkinje fibre.

,	Page No.  Date: / /
Used for t/t -> Ventricula	
Useq for t/t -> venucula	a array faccios
	(Tathycardia)
, <del>F</del> 4	
eg: Lignocaine (Lidocaine)	
Mexiliture	
Phenytoin Tocainide.	<del>-</del>
To cainide.	<u> </u>
	•
Mexililine:	
- Lignocaine derivative	
- Lignocaine derivative - Useful for the Ventrio - Used for Drabelic nei	cular arrhythmias.
- Used for Diabelic new	uropathy pain
100	ulabeled Use)
- Used for Phantown le	int pain
ADR - Severe Nausea & Iren	uor.
7727	
Phenytoin:	
Phenytoin:  - Antiepiloptic	
USE - t/t of Digitalis (Di	igonia) induced VT
0 10 10 10 10 10 10 10 10 10 10 10 10 10	
Tocainide:	<b>6</b>
Booz of causing Agrane	ulocytosis it is not wed.
Lignocaine:	•
- Class IB drug	•
- Never gwen orally 6	coz undergo extensive
1st pass metabolism	in a
- Given i.V.	
- libid soluble, Cross A	3.8.B.
	<u> </u>
SJE - 'Convulsion G Com - Nucl	laguus (1st sign)
11 ( was blow - Ci)	reum oval paraethetia
1st squipting	- ι · ι · · · · · · · · · · · · · · · ·
•	

9 🜑	
	Page No.
20	Date: / /
	Use - V7 (Ventricular Jachycardia)
	VSE - VT (Ventricular Jachycardia)  VF (Ventricular Fibrillation)
0	Digoxin viduced VT (DOC: Lignocavie)
	(> # Class IB drug has no role in altial arrhythmias
0	U U
	Class IC:
0	· Nat blocking + Negligible effect on K+ channel.
•	· Na+ blocking + Negligible effect on K+ Channel.  · Maxm pro-arrhythmic property.
	· Non commonly used.
	· Only for antiarrythmic drug causing arrhythmia.
0	
	Flecainide (DOC: for Acule WPW)
	Encainide
	Propafenone
3	Mori cizine
	0
9	PROPAFENONE:
9 9	- Also B-blocking property.
	, , , , ,
y .	Class III: K+ Channel blocker
) @	· Prolong APD -> QT prolongalion
<b>)</b> 🗑	/ /
	AMIODARONE:
20	· lodine containing anti-arrhythmic drug.
	Mulli MOA: K+ Channel blocking
	Nat Channel blocking
	B-Blocker property
	CCB property:
	: Broad spectrum Anti-arrhythmic.
<b>A</b>	

	Page No.	
	Date : / /	
Half life = 53 days.		- <b>(3)</b>
		•
USES: All lype of arrhytheticas Ventricular & Supraventic		<u> </u>
Ventricular & Supraventic	cular arrhythmias.	
ADR:		9
PLZ = Photosensilivity, Pigmentation	n of Skin (Gray-blue)	•
Check = Corneal deposition (Whorl like	e pattern cornea)	<b>6</b>
PFT = Pulm. Fibrosis, Peripheral new	ropathy.	
LFT = Liver damage, Pseudo alcoholio (	iver injury & Mallory	8
TFT = Hypothyroidism	Ohyline bostes.	0
- due lo inhibition of periph	reral conversion of T4->T3	<b>6</b>
Hyperthyroidism	0 '	0
07		<b>6</b>
Whorl like pattern cornea - Corne	na prerficillata	6
or Vertex.	Keratopathy.	
	/ //	0
[Pseudo lymphoma - Phenytoin		
Pseudo lymphoma - Phenytoin Pseudo gaundice - Rifabulin		0
		0
Amiodarone causing Hyperthyroide	sur due to:	6
Amiodarone causing Hyperthyroides Hypothyroidism: inhibition of peripheral conve	ersion of Ta > Tz.	
(1) Contain Jodine -> Jodine help Huperthyroid To & To	s in Suntherin of	<b>6</b>
Hyperthyroid 73 & 74	0	<b>O</b>
(2) Can cause in Hammalin of	follicle ·	<b>a</b>
(2) Can cause en flammalion of	)	<b>O</b>
# In each 200 mg tablet there is 75 on	es of codenie.	<b>-</b> 9
# In each 200 mg tablet there is 75 mg.  R: Inhibit iodede trapping	7 0	-6-2
· Per chlorate		<b>6</b>
· Thiocyanate.		<b>1</b>
	cethasone (Steroids)	2
0	-	

	Page No.  Date: / /
	Date.
	Class III drugs:
	Amiodarone
	Dronedarone (No roduie)
	Bretylium (Chemical definible)
	Sotatol
-	-DoteHlide
	Newdrug Scutilide (FDA approved for conversion of AF-SR) -i.v.
	L Vernak alent
150	Class IV: CCB
	Verapauil (Most potent)
	Verapauil (Most potent) Diltiazeun
	Miscellaneous drugs:
	ADENOSINE:
	- Gwen i.v., Short acting, Raped infusion (Bolue)
	Silē - Close lo heart.
	- DOC for SVT
•	- 9t is also called Endogenous epileptic.  Antagonist - Melhyl xanlhine -theophylline  Agonist - Dipyridamole  Couse > Coronary Steal Phenomenon.
0	Antagonist - Melhyl xauthine - the ophylline
•	Agonist - Dipyridamole
	Cause > Coronary Steal Phenomenon.
	·
	for Acult SVT: i.v. Adenosine
	i·v. Verapaniil·
	i.v. Verapamil.
	to prevent recurrance of SVI. Und product
	Oral Verapamil.
<b>6</b>	

	Page No.	0 0
		<b>=</b>
MgSO4: USE -OCNS		0
USE -SUCNS		
4> Long QT Syndrom		6
		0
D- Hooker Moson	<i>09</i> ·	
Congenital Acquire B-blocker Mg804 (Propranolal)		0
USE: 4 Digitalis intoxical	ion	8
J		0
Hupo Kalemia		6
Hupo magnesimia	→ Give MgSO4	0
Hypo Kalemia Hypo magnesimia Hypercalcimia	, ,	3
		0
2) Resp System	Y = -	<b>6</b>
2) Resp ^r System USE: Bronchial as/hmā		6
		0
3 GIT (la xative propert	4)	•
USE: Constipation.	<i>Q</i>	<b>®</b>
	•	0
4) Ortho (anti-inflamma: USE: Synovitis.	tony property)	<b>9</b>
USE: Synovitis.	<i>( ( ( ( ( ( ( ( ( (</i>	<b>6 4</b>
		<b>6</b>
S) Obe & Gyn. USE: Eclampsia		9
USE: Eclampsia.		<b>3</b>
		0
S/E - Di'uninished deep tendo. Rarely Respr failure.	n reflex (M/c)	<b>6</b>
Rarely Respr failure.		-0-3
Safefy Limit — 4 m Eg/L  9f >7m Eg/L → Patella  >14 m Eg/L → Respr fa		
y gf >7m Eg/L -> Patella	er reflex • 1	
>14 m Eg/L -> Kespt fa	uure ·	
V		

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	Antidote - Calcium Gluconale.
3	ATROPINE:
	- Anti-Cholinergic agent.
<b>-</b>	- Causing Jachy cardia.
	- Anti-Cholinergic agent Causing Jachy cardia  USE - Bradycardia or Heart Block.
•	<b>V</b>
)———	DIGOXIN: Already discess
	Cardiac glycosides:
9	Description of the same
6	Digoxin Digitoxin
0	Paul de de la constant de la constan
	Route of excretion Renal Hepatic  Plasma concr 0.8-1.5 ng/ml 15-30 ng/ml.
	Plasma concr 0.8-1.5 ng/ml 15-30 ng/ml.
	- Both have narrow therapeulit index
•	i.e. Unsafe & need monitoring.
•	None
0	Digozin S/E: Cardiac S/E
-0-	Nausea & Vamitting (M/c)
-	CNS depression
	Yellow'vision defect (Xan/hopsia)
	Gyanacomastía (In male)
	Cardiac GE
	Alrial Jachy arrhythmia (AT)
	AV block
	V7 (Venticular Pachycardia)
	Venticular Bigening (M/c)
	Non-paraxysmal AT & Variable AV block by Most Characteristic
9 🚳	arshythenia.

For the digoxin induced AT — Pr  # Absoprine → AV Block  Lignocaine → VT  # No role of Hemodylysox & in dig  bcoz large Vd.  # Anhalote for digoxin toxicity —  Check S. K [†] , Mg ^{2†} , Ca ^{2†}	ponin toxicity	
# Atropine → AV Block  Lignocaine → VT  # No role of Hemodylysox & in dig bcoz large Vd.  # Anhidote for digonin tonicity —  Check S. K [†] , Mg ^{2†} Ca ^{2+†}	ponin toxicity	
# No role of Hemodylysox & in dig bcoz large Vd.  # Anticlote for digonin tonicity—  Check S. K ⁺ , Mg ²⁺ , Ca ²⁺		0 0 0 -0
# No role of Hemodylysox & in dig bcoz large Vd.  # Antidote for digonin tonicity—  Check S.K. Mg. Ca?+		
# Antidote for digorien tonicity —  Check S. K [†] , Mg ²⁺ Ca ²⁺		
# Antidote for digorien tonicity —  Check S. K [†] , Mg ^{2†} , Ca ^{2†}		0
# Antidote for digorien tonicity —  Check S. K [†] , Mg ²⁺ Ca ²⁺		<u> </u>
Check S. K [†] , Mg ^{2†} Ca ^{2†}	Digibind.	
Check S. K [†] , Mg ^{2†} Ca ^{2†}		•
<del>-</del>		
		. 0
<b>,</b>		0
		1
.*		<b>8</b>
	_	
	,	
		6
	······································	
		-
		-

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	Page No.  Date: / /
	DIURETICS.
	In the PCT -> Carbonic anhydrase
3	↓
	Reabsorphian of NaHCO3 (85%)
	Reabsorption of Nacl from urine (60%)
<u> </u>	
-	Thin descending limb - Absorption of 420
	Thin descending limb — Absorption of 420  4 Concentrating Segment
	<i>y v</i>
-	Thick ascending limb -> Nat-K+-2Cl Symporter
-	<i>✓</i>
	Absorption of Nat, Kt, Cl, Q2t, Mg2t.
•	Absorption of Nat, Kt, Cl, Q2t, Mg2t.  (Diluting segment) (25%)
(B)	DCT -> Nat-cl-Symporter
· • • • • • • • • • • • • • • • • • • •	✓✓
	Re Absortion of Nacl (10%)
	Reabsorption of Ca2+ (+PTH)
	E help of
9	
	CT → Reabsorption of Nacl ( E help of aldosterone) (5%)
<del>-</del>	Secretion of K+2H+
	Reabsorption of H20 (E help of ADH)
	Prunary Hyperaldosteronism (Conné Syndrome):
	17 Aldosterone
-	4F - HTN
	Hypokalemia
	for t/t HTN → K+ Sparing antidiusetic  L. Spironolactone.
	4 Spironolactone.
3	

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Carbonic anhydrase inhibitors:	
Acetazolamide 7	
Dorzolaunde Non-compe	étitive & Reversible.
Brinzolanuide -	9 1/0000000
7,50000	
Site of Aclion - PCT	
Site of Aclion - PCT  MOA - Inhibit Carbonic Anhy	drase.
<b>(</b>	
ADR -OLOSS of HCO3 7	<b>6</b>
ADR -OLOSS of HCO3 7 Metabolic acidosis.	
# Acetazolamide causing Alkalia	ırea 💮 🤄
# Acetazolamide causing Alkalin	alion of wrine.
	<i>0</i>
2) Maxin potassium loss.	6
·	
# CA inhibitor also acting on coll +ubular secretion of 4+ → so c actdoxi² & massive Hypokal	lecting duct - it is hibit
tubular secretion of 4+ → so c	ause Metabolic
acidosis & massive Hypokal	lemia.
# CA inhibitor are Sulpha deriva	live:
SE - Hypersensitivity Bone warrow	ty o
Bone marrow	suppression.
# C/I - liver disease (hepatic ex	ncephalopathy)
COPD	<b>0</b> _
Metabolic acidoxic.	•
	• •
	Re Control of the Con

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6	Date: / /
	Loop Diurelies: High Ceiling diurelie (1 dose →1 diuretie action)
<i>D</i>	Site of action: Thick ascending loop of Henle
	1 1 1
-8	MOA: Inhibiting Nat- Rt- 2Cl symport
	loss of Nat, K+, cl-, Ca2+, Mg2+
<b>B</b>	Eg: Furosemide -> Vasodilatory action (USE: RF, LVF)
	Bunelanide -> Most potent
	Mersaly2 -> Kidney damage (Not in Use)
	Ethacrynic acid -> Highly ofotoxic (No CA enzyme unhibition)
	Torseuride → Longest t/2 '
	g ca, /=
	Role of Furosemide in Renal failure:
	Role of Jurosemide in Renal failure:  Jurosemide promote vasodilatory active PG
	1
	By 1 intra renal blood supply
<b>- (</b>	<i>√</i>
	Improving Renal failure
	NSAID + Jurosemide -> NSAID is not given & Jurosemide
	in Renal failure pt. by booz it inhibit
•	synthesis of PG.
	0 0
	# Diurelies of choice in the presence of RF
	Choice - Furosemide
<b>3</b>	inet ecline - Thinzides
3	# Diurelies of Choice in the presence of RF  Choice - Furosemide  inef fective - Thinzides  Exception - Metologone  Out - Wit charing drugs:
9	C/I - K+ spareing drugs.
<b>A</b>	
9	
- O	

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Date: / /
Role of loop deurelies in heart failure:
Jurosemide - Only Relief symptoms of CHF.
Role of loop divirelies in heart failure:  Jurosewide - Only Relief symptoms of CHF.
Main mech": Vasodi Calion
1
Beoz of vasodilation furosemide (i.v.)
Beoz of vasodilation furosemide (i.v.)  rapidly relief breathlessness in CHF.
SE of Loop diureliës:
Water loss Electrolyte Metabolism Miscellaneous.
unbalance
Profound Loss of Nat, (Hyperuriceuna) Metabolic alkalosis
ECFV Depletion K+, cl-, Ca ²⁺ , Mg+ Hyperglycemia Ototoxicity
Hyperlipidemia (Inreversable)
Calciurea Therdruge
(Risk of Kidneystone) Exception: Aumoglycoxides
INDACRINONE Cisplatin
(Ethycrinic acid Vancomyein
(Ethycrinic acid Vancomycin derivative) Erythromycin
Uricosurie agent.
,
Drug interaction: Loop divirelies + Arrhythmia
Drug interaction: Loop divirelies + Arrhythinia  - loop divireties by causing hypokalemia &  hypomegnesimia -> causing digoxin toxicity.
hypo magnesimia -> causing digoxin toxicity.

_	•
	. (
	Page No. ¹⁴⁵
	Date: / /
_	Thiazide diurelics:
	Site of action: DCT
	Mod: Orahibiting Na+-cl-Symport.  De Promotes Reabcomption of Ca2+
-	1
	Causing huber calcoung ( Using Co2+1)
	Causing hyper calcemia (Urine Ca2+4)
	Cata los Paral al mas
	Safe for Reval stones.
_	3) Also having antidiurelie activity.
	eg: Indapamide -> Vasodilatory action (No CA enzyme inhibition
	Chlorthalidone -> longest acting
	Metolazone -> Viseful even in severe RF.
	$\mathcal{O}$
	# A/c lo INC quidelines, the 1st line drugs are:
	This zides - tube divirelies
	Ihrazides - type diurelics CCB
	ACE inhibitors
	ARB'S
9	Therapeulic effect:
	Therapeulic effect:  As a divirelic — O I/t of Mild edema  2) I/t of HTM
	2 T/t of 47N
	As a anti-diurelic — I/t for Nephrogenic DI.
	. 0 1 0
	It & Ca2+ Excretion -> Idiopathic hypercalciurea
	It V Ca ²⁺ Excretion > Idiopathic hypercalciure'a or William Gyndrome
<b>a</b>	
	TH of Calcium Naphralithiani
	T/t of Calcium Nephrolithiasis
-6	

		. }	e No. ]146
		Date	e: / /
Adverse ef	tects:		
U			
Wafer loss	Electrolyte	Metabolism	Mrscellaneous.
	abnormality		
ECFV	Hypokalemia	Hyperuricemia	Metabolic
depletion	Hyponalremia	(Hyperglycemia)	alkalour's
	Hypercalcemia	1 LDL /	Impotency
		<u> </u>	(Erecfile
Use untit	:Osteoporoxis	This side causing	dyefunch)
		insulin resistance	7
		as well as inhibiting	
		Insulin release	
		<b>₹</b>	
		HTN & Hyperlipideu	nia
\$ 6-		So don't use thingid	(e)
		·	
	K+-Sparing	diurelits	
		> Càu	sing Hyperkalemia.
•	ne antagoonst	E Na Channe	l unhibitor
	aclowe (M/c) 5	Amiloria	te ·
	one (Active wetabo		
Epleren	on (No gyanecoma	stia) s Pentamii	dine
D rospu	enene (Progester	one) (Irimel	
	•		crobial having
		E Na Chana	rel einhibitor
		property	·
TAIL O.	· · · · · · · · · · · · · · · · · · ·		
ENac:			
	from wrine in	CD is absorbed by	y ENaC.

	•	
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	Date: / /	
	Spironolaclone:	
<b>9</b>	MOA: One & only drug acting on interstition.	
	MOA of Amiloride: Amiloride acting from lumen &	
· ·	MOA of Amiloride: Amiloride acting from lumen & blocking ENAC.	
÷		
<b>)</b>	Therapeulic uses of Spironolaclone:	
0	Blocks Aldosferone	
<b>a</b>	(D.T/t for Primary Hyperaldosferonism (Comoss)  (DOC) T/t for Edema of liver cirrhosis (Ascites)  (3) T/t for Heart failure.  Disease modifying HF -> Spironolaclone.	
9	(DOCHE) THE for Edema of liver circhosis (Ascites)	
	3) TH for Heart failure.	
-	Disease moditions HF -> Spironolaclone.	
	The state of the s	
	Advosse efforts:	
	Adverse effects:  Hyperkalemia  (M/c)	
)—	LALISHOLIC GELLARUS.	
	Pros of	Anti
)	Long lever et lest in male - Impotence - 1 andreger	nt Lim.
	Gunecomostia	Etras
)	in towale - Aconstitual insegulari	tion
-	m genicie - pojetisticio societa	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Long lerun effect in male - Impotence - pandroga Gynecomaslia in female - Menstural irregulare Drug causing Gyonecomaslea:	
	Drug causing Gyanecomaslea: D= Digoxin	
	To Nigonov	
	S = Shi ou ol o ol o ol	
<b>)</b> —	S = Spironolaclone	
)	C = Cimitédene	
	K = Ketocomazole	
<b>9</b>	0 = Destrogen/anti-androgen -> Finasteroid	
	Trl	
<u></u>	T/t of male pattern balane	<u> </u>
	Website: http://mbbshelp.com  WhatsApp: http://mbbshelp.com/whatsapp	

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	-0-
# Drug useful in painful Gynaecomaslia - Tamoxiten.	
( DOC) U	
	•
Therapeulic effect of Amiloride:	
V	<b>6</b>
Block Nat Channels	
O T/t of Liddle's Syndrome (1 ENGC)	
2) T/t of lithium induced DI (3) Tt Aerosol — Cystic fibrosis. (Mech" not known)	•
(3) It Aerosol - Cystic fibrosis. (Mech" not known)	<b>®</b> _
Mannifol - Osmolic dimetics	
Site - LOH & PCT	
Vieful for T/t of @ Glaucoma (Given i.v.)	
2 Cerebral edema	
3) Cisplatin toxicity.	
3 Cisplatin toxicity.  Antidote - Amifostine.	
Maunitol added & cisplalin to control Nephrotoxicity	<i>y</i>
Cerebral Hemorrhage	•
Cerebral Hemorrhage	<b>(6)</b>
SJE - Hyponalrema Headache	
Head ache.	•

<b>a</b>	Page No. 149  Date: / /
3	ANTIDIURETICS
	- ADH (Vasopressein)
	V2 Receptor:
	localion -> V2 seen on medullary portion of collectinadu
	localion -> V2 seen on medullary portion of collecting du Action -> Water Reabsorption
	,
	· Also seen on Vascular epithelium
	Achien -> Releasing VIVF & Factor VIII
<b>1</b> -0-	
[-a	Desmopressin:
	- Synthelic analogue of Vasopressin acling on 1/2
	- Synthelic analogue of Vasofressin acting on Vz USES: DOC for Cranial diabetes insipidus
	Doc for Nocturnal Enuresis
	Useful for Hemophilia
<u> </u>	", Bleeding due lo deficiency of VW factor.
1	
	Vi Receptor:
	- Seen on Vascular smooth muscle
	Aclion -> Vaso constriction
<b>}</b>	Vi analogues: Synthetic
9-0	Terlipressur 7-Useful to control esophyzal various
	Lypressin Doc: Octrotide
	Lypressur - Doc: Octrotide_
	Prophylaxis DOC: Propranolol
	# Q 4.4
-0-	# Terlipressin added & Lignocaine to prolong the action.
	Selective V2 antagonist:
	Oral Mozavablan - Doc for STADH
	Tolavaptaer J

Date: / /	<b>0</b> (
Selective V, antagonist:	0
Relangablan - Useful for HTN	<b>0</b> 6
Relcovaptan - Useful for HTN Nelivaptan - V16 blocker	•
1	6
Undergo Chinical Trail tor	-
Undergo clinical trail for t/t of Anxiety.	8
Non-selective V, & V2 autagonist:	<b>6</b>
CONIVAPTAN (V2>V1)	6
4 USE: SLADH	
Gwen i.v.	•
	<b>6</b>
HEMATOLOGY	<b>3</b>
	<b>a</b>
Thrombolylic Agents:	0
MOA - Plasminogen activator -> PLASMIN	0
Thrombolylic Agents:  MOA - Plasminogen activator -> PLASMIN  (Profibrinolysin) (Pibrinolysin)	0
	0 0
eg: Streptokurase	9 6
MC S/E Urokinase	
Bleeding Alteplase	
Releplase	
Releplase  Tenecteplase	0
	0
Antidote of Thrombolytic drugs:	
Antidote of Thrombolytic drugs:  EACA (Epsilon Amino caproir Acid)	0
Tranexamic acid	<b>-0</b> -10
Aproto inin.	0
	0
	0
	B

		Page No. 151
	WAPFAPIN : Quichilu	
	VIINTALITY CONCOCCO	ig vitk dependent factor  VII, IX, X)
		( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
	Protein	Half life.
	Factor II	Half life 72 hrs
	VII	4-6 hrs
	IX	24 hrs
	X	44hrs
	Profein C	8hn
	Proteins	30 ms.
	- for full benefit of	warfarin occurs, wait for de DVT
	- Not used in Aci	de DVT
	<u>- Useful en prophyla</u>	xis of Chronic DV7.
	•	
	- Normal funer of P	rotein C > inhibiting Factor
		10 1
	Cle al way	Hypercoagulation.
	Y∈ of warf	arin
	V	Dermal Necrosis.
	dua 1= Dialaria	
	due lo Profeir C	Purple foe syndrome
	inhibition	Purple toe syndrome
l	inhibition	Purple toe syndrome
	inhibition	Purple toe syndrome
	unhibition Warfarin Cherapy: Narrow therapeu	Purple foe syndrome
	inhibition Warfarin Cherapy: Narrow therapeu Jwo isomers (R	Purple toe Syndrome.  Hic index (Only INR done)
-Hr	unhibition Warfarin Uterapy: Narrow therapeu Jwo isomers (R S (Acle	Purple toe Syndrome.  Hic index (Only INR done)  we)
#	unhibition Warfarin Uterapy: Narrow therapeu Jwo isomers (R S (Acle	Purple toe Syndrome.  Hic index (Only INR done)  we)
######	unhibition Warfarin Uterapy: Narrow therapeu Jwo isomers (R S (Acle	Purple toe Syndrome.  Hic index (Only INR done)

Page No. Page No.	0
$O_{2}/O_{1}/O_{2}/O_{2}/O_{3}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4}/O_{4$	-0-0
Warfaren: INR = Paftert P / Control PT  (A) -> 2-3	-
Prosthelic Value → 2.5-3.5	<del>_</del>
. $long ferun \rightarrow 1.5-1.9$	
C/I in Pregnancy -> Teratogenic	<b>-</b> ●-•
GI in Pregnancy → Teratogenic	0
Contradi Syndrome	0
Fetal Chondrodysplasia Punctata.	
	4
Antidote of Warfarin -	
	•
(Natural Vitk1) Vitk2 Vitk3	•
Phytonadione Menoquinone Menadione	<b>6</b>
Takes about 24hrs	
to reduction INR	
for immediate hemostasis - Fresh frozen plasma (FF)	90
	à 0
# New Oral drugs — direct IIa inhibitor  Ximelagalrow (Cause Severe hepatotoxicity  - Not used.	<u> </u>
Xi'unelagalron (Cause Severe hepatotoxicity	
- Not used.	
Dabigalron	<b>3</b>
" Manager of the District of the state of th	
# New oral drugs: Direct Xa enhibitors	-
Aprixaban	0
Befrixaban	
100/2010	
	- Table

•		Page No. 153
-		Date: / /
	Injecting Anticoag	ulant acling Via Antithrombin III
	J /	pathway:
•	Heparin	( inhibit Xa; IIa)
		inhibit Xa)
-0		Enoxaparin
•		Dalteparin
-		Jinza pariir
		Nadroparin
	,	
	Other injectable dri	ge acling via Antilhrombin III but
	only inhibition	g Xa:
	Fonda	parinex
	Idrap	asingx
<b>6</b>	Idrabi	ota parinux - Antidote > Avidin
) 		
) -@	# Specific antidof	e for Heparin - Protamine Sulphate
<u> </u>	<i>' U</i>	e for Heparin — Protamine Sulphate 9t is Chemical cantagonisin.
		Img of Protamine sulfate
0		Neutralizes 1000 of Heparin.
<u> </u>		
	Direct Xa inhibitor	- Otamixaban
		(Undertoail)
9	Injectable - Dur	ect Thrombin (IIa) inhibitor
0	Bivalent:	Monovalent
	Hirudin	
•	Bivalirudin	Argatooban (Biliary excretion)
	Lepirudin	Melagalran
<b>.</b>	,	V
•	- These using are used e	in pt. who developed Hepanin induced benia.
	/ Numberly for	Dema ·

Date: / /	• (
Adverse drug reacn:	<b>————</b>
Heparin Warfarin	•
A = Alopecia A = Alopecia	•
B = Bleeding B = Bleeding	
0 = Osteoporosis (Supplement Ca) 0 = Oral (3I intolerance)	
U = Ulticaria (Hypersensitivity) U = Dermatitis	
7 = Thrombocytopenia 7 = Teratogenicity.	
Rarely Hyperkalemia	6
	6
Monitoring:	
Antiplatelet drugs (Aspirin) - Prolongs BT	
Heparin (Intrinsic pathway) - Prolonge aPTT	_ · 💇 🐧
Warfarin (Extrinsic ") - Prolonge PT	<u> </u>
LMWH - No need of monitoring	
If monifor then Antifactor Xa	
	0
In Reval failure & Obese pt.	
ANTI PLATELETS	
Drugs einhibiling Synthesis of TX-A2: Selective COX-1 inhibitor — Low Dose Aspirin	
Selecture COX-1 inhibitor — Low Dose Aspirin	0
(50 rng - 160 rng)	
	<del></del> 2
Thromboxane synthase enzy me inhibitor - DEZOXIBEN	1 0
Drugs unhibiting TX-Az Receptor:	
1FETROBAN	
SULTROBAN	*
LOSARTAN (ARB having Antiplatelet action)	
VAPI PROST	

•	
	Page No. ¹⁵⁵
-	Date: / /
	Drugs inhibiting synthesis of TX-Az & blocking action of TX-Az receptor: Dual action PICOTAMIDE
	of TX-Az receptor: Dual action
<b>(3)</b>	PICOTAMIDE
<b>9</b>	
<b>6</b>	Newerdrug: SERATRODAST (Thromboxane Az antigonist).
•	ADP (P2Yiz) blockers:
	Ticlopidine 7 - Prodrug
•	Clopidogrel
_ <b>©</b>	Prasugrel-
	Ticagrelor
	Cangrelor – Given i.v.
•	<i>Q</i>
<b>6</b>	Ticlopidine - Att Not commonly used
<u> </u>	Jiclopidine - MAR Not commonly used  becoz Urrombocytopenia & Hepatotoxicity.  Clopidogrel - Activated by CYP2019.
	Clopidognel - Activated by CYP2C19.
	# Omiperazol should n't be given è clopidognel.  Pantaprozol & Rabeprazol don't have drug  interaction è clopidognel.
9 6	Pantaprozol & Rabeprazol don't have arug
	inferaction & clopidogrel.
	. / 0
<b>.</b>	
	Glycoprotein 116/111a blocker:
<b>6</b>	- Abcixi mab - Monoclonal antibody.
20	Gwen iv Eptifitatide
20	Gwen i.v. Eptifibatide Triofiban
	V
<b>*</b>	PAR 1 blocker (Protease activated Receptor blocker)
•	Vorapaxar
0	Atopanar.
<b>6</b>	

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Date: / /	
Essential Thrombocy fosis:	<b>0</b> —
ANAGRELIDE -> Platelet malination inhibitor.	6
	Ô
DOC for Sickle cell Anemia - HYDROXYURIA	Ö
V	
useful in Essential thrombocytosis.	<b>—</b>
	0
Drug used for T/t of CCF:	<b>6</b>
	6
Drugs einhibiling release of Renin:	<u> </u>
B-Blocker	~
Clouidine	•
Methyl dopa.	<b>(</b>
	<b>O</b>
Renin inhibitors:	
Aliskiren (FDA approved)	<u> </u>
Remikiren	
Enakiren	
	•
ACE inhibitors:	
Captopril	
Rampril	
Lisinopril	
Ramipril Lisinopril Fosinopril (Renal & Bile excretion)	
	6
# All ACE inhibitors are Prodrug except Captopril	à
Lisinopril.	-
# All ACE i are having Renal excretion.	
	(
Action -> Vasodialation (Equally dilates Artery & Vein)	
Action -> Vasodialation (Equally dilates Artery & Vein) Useful for -> HTN, CCF, MI, DM, Protenuria, Scheroderma.	
Nephroprofective.	
	1

à	·
3	(5.7.157)
	Page No. 157
-6-	Date: / /
	GI-O Pregnancy
•	2) B/L Renal Stenosis
	91-0 Pregnancy  B/L Renal Stenosis  Severe HyperKalemia
	g salati g salati s
	Be adukining to tomaict: Jestil and
<b>—</b>	Brady kinin anlagonist: Icatibant
	Useful for angivedema & dry cough.
<b>®</b>	
_6_	Heredilary angivedema:
, _ <u>`</u>	Heredilary angivedema:  C1-esterase inhibitor deficiency.
<u> </u>	ICATIBANT
	RUCONEST -> Human Recombinant C1-esterase inhibitor
•	
	Ecallantide 7 Aprofinin   Kallikrein Linhibitor.
	Aprofinin 1
	DANAZOL -> Antigonadotropur c anti-androgen action
	(Impeded androgen)
	# Sampratilat 7 - inhibit Vasopeptidase
	# Sampratilat 7 - inhibit Vasopeptidase  Omapatrilal - ACEi
	Vannaherda:
. 6	Vasopeptide:
	PEPTIDE
<u>.</u>	ANP BNP URODILANTIN
<b>9</b>	Func ⁿ — Natriuresis —
20	Diuresis
2	Vasodilation
	Combodia
	Synthetic Analogue Carperitide Nestritide Ularitede
	The state of the s
9	
2	

	Page No. 158  Date: / /	*
Nesiritide:		0
Synthelet analogue of BNP Aclion → Druresis	MONEY TO PO	
Action - Druresis		6
Nalriuresis		0
Vasodilalion		- <b>6</b>
		-
Useful for t/t of CCF.		
		•
- Gwen iv, Never oral		<b>(</b>
→ Metabolism → Vasopeptidase		-6
- Metabolism - Vasopeptidase - Shorler by half life - 20 min	and the state of	
0 0 0	the state of the s	_
S/E - Severe Hypotension		- 60
•	·	0
# Other name of Vasopeptidase - Ne	prilyin	
# Other name of Vasopeptidase - Neg (Neutro	al endopeptidase).	0
Selective Vasopeptidase inhibitor:		**
Ecadotril	a Produce	-
Sacubiliil	<u> - Leal - Maria de </u>	_
0. 1 1-0 4 1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1		-
Omopatrilat – mhibit Vasop Sampatrilat – ACEi	reprigase Dual enzyme	
Sampatrilai - AEEI	unestor.	Ŏ
ARB's:		<u> </u>
Losarfan		
Valsarfan		_6
Telmisartan		
Olivi sartan		0
Azilsartan		
HAZI I SWLTOW		

	Page No. 159	
-	Losarlan: Date: 11	
	Aclion -> Unicosurie aclion	
	TX Az aulagonism	
	V	
	Teluisartan	
<b>-</b>	- Agonistic aclien on PPAR V2	
6	(Peroxisouse proliferator-activated receptor)	
6	(Peroxisome proliferator - activated receptor) So used in T/t of DM.	
	Aldosterone Antagonist:	
-0-	Spironolaclone	
	Canrenone	
	Eplerenone	
•	Drospisinone	
<b>6</b>		
	# ACE i + Spironolaclone > Severe Hyperkalemia.	
	Any drug blocking RAAS pathway will cause hype	r kalem
	Other drug useful for the of CCF	
•	Other drug useful for tot of CCF  Phosphodiesferase 3 inhibitors:  —Amrinone (Inaurinoue) 7	
Ö	-Amrinone (Inaurinoue) 7	
	Milrinone Jonodialator.	
	Levosimendan -	
• .		
	M/c S/E - Thrombocytopenia	
	M/c S/E - Thrombocytopenia  M/c S/E of Milrinone - Arrythmia	
		,
) in		
9		
,		

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Date: / /	
Heart failure:	
Heart failure: Na+-k+ pump inhibitor: Islāroxime.	6
` / /	
Direct myosin activator: Omes camitiv mecarbil	
(+ve înoliophic)	<b>6</b>
Calciun sensitioer:	***
Pimobendan	۱
Levosimendan (PDE-3 blocker)	6
•	
Disease modifying drug/	
Drug reducing mostality in CCF:  B-Blocker (Carvedilol, Bisoprolol, Meto/prolol)	
B-Blocker (Carvedilol, Bisoprolol, Meto/2001)	0
ACEC	Ó
Angiotensin Receptor Blockers (ARBi) Spironolaclone	0
Spironolacione	
ISDN, + Hy dralgzine.	-4
Isosorbide dinilitate	٥
	Õ
control symptoms only in ccf.	
control symptoms only in ccf.	
	6
	<b>©</b>
	0

Page No. Date: / Drug useful for Acid peptic disease (APD): He Antihistamines: Cimetidine - Least potent. Ranifidine Famotidine - MOST potent Roxatidine Nizatidine Loxalidine. ( Basal acid output & Noclurnal (more effective) So, give at Bedteine. Renal excretion. Cimentidine - Antiandrogenic CYP enzyme inhibitor Least potent. PPI (H+-K+ ATPase unhibitors): TOMEPRAZOLE (Metabolism by CYP2C19, CYP3A4)
Esomeprazole short half use for tess Pantaprazole Jansoprazole Rabeprazo/e Butacting duration -> Hit & Run drug

(Irreversible inhibition of Proton pump). Omeprazole not given à clopidogrel. Rabeprazole No eignificant drug interaction Pantoprazole (preferred & clopidogrel)

Page No.	٥
Date: / /	-
Antacids:	
Sodium Bicarbonate	
Calcium Carbonate - Shouldn't be taken ō milk	
·	0
boog Milk alkali Syndrosone.	- M
# GELUSIL:	<b>3</b>
Combination of Aluminium Hydroxide (Constipation)  + Magnesium Hydroxide (Diarrhoed)	•
+ Magnesium Hydroxide (Diarrhoea)	6
Ulcer protective drugs:	
Sucralfale (Sucrose + Sulfated Aluminium hydronide)  - Acls only in Acid unedium (pH below 4)  - 94 should n'+ be combine c 42 blocker/PP1/	
- Acts only in Acid medium (pH below 4)	0
- 9t should n't be combine & 42 blocker / PPI/	
antacid.	
Bizmulh	- <b></b> -
- Black stool & longue.	
C/I - Renal failure.	•
	0
Ulcer healing drugs:	Ğ
Ulcer healing drugs: Carbenoloxone	_ <b>_</b>
	- 19
→ S/E — Dzzplaces aldosterone from protein binding.	
Prokinelië drugs:	<u> </u>
Drugs promoting GI motility.	
Dr antagonist:	
Prokinelië drugs:  Drugs promoting GI motility.  Drantagonist:  Domperidone	
Metaclopramide	
	<u> </u>
	100

•		
6		Page No. 163
0	FUT.	Date: / /
	5HT4 agonist:	
<u> </u>	Cisapride	7 - Cause 97 prolongalion : Withdraw
	Możapride	: Withdraw
0	Tegaserod -	J
<b>6</b>	Mozapride Tegaserod Iveosulprid	de
(1)		
- W	Cholinergic agonist (	Ms agonist)
<u> </u>	Cholinergic agonést ( Beltranechol	$\ell$
<b>6</b>	Neostigunie	
<u> </u>		
<u></u>	5HT3 blocker:	
	Ondanselran	ŵ·
•		
Ö .	# Antibiotic having	Prokinelic action: Macrolide.
		V
<b>—</b>		acling on motilin receptor
		of small intestine cause diasal
6		of small intestine cause diarrh Among Macrolide — maxa Prokineli
Ó		F su thomusein.
å		Erythromycin
- Drug	used in Anti Cancer/Radi	ialion - drug induced vomitting
J. W.	5473 autagnmists	<i>y</i> :
•	Ondanselron	ialion - drug induced vomitting  ::  M/c 4E - Headache.
Ö	Graniselron	
	Tropiselrön	
<u> </u>		-> QT prolongation
	1 0000020400	n → Highly selective 5473 antagonist Long acling (T1/2 = 40 hrs)
0		Congration ( 1/2 ( Const)
<u> </u>	•	
<b>)</b>		· · · · · · · · · · · · · · · · · · ·
We	bsite: http://mbbshelp.com	WhatsApp: http://mbbshelp.com/whatsapp

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			Date: / /	
Su	pporlive drug:	for better efficac	cy	
Onderettion -	Dr blocker & B	ZD & Steroids		•
Ondasetron - mixed c	V	V		<b>Q</b>
	3. Domperidone	Dexamelha	ione	0_
		Melnylprede		_ <b>A</b>
Ant	tiemelic belongin	ig to Cannabine	rids	•
	Nabilone			
	Dronabinol	Antiemetic ;	+ Apefife stimulant.	-
2-3	days after Chem	otherapy -> Late	phase Vamiffing	
	0 0	( V	U	•
	7/+	-OAbrepitant (	oral) 7	<b>*</b>
	. / -	-OAprepitant (  @ Fos aprepitan	t(i-v.)	
		1.		
		Neurokinin 1	antagonist	***
			0	***
,	(	3) Palonoselron	•	
				•
	IBS			Ö
· T/t o	f Constipation d Magnesium hyd Methyl Cellulose Lactulose syrup	Cominant IBS:		
	Magnesium hyd	roxide		
	Methyl cellulose	2		<b>.</b>
	Laclulose syrup	> Also useful;	for Hepalic	•
		ence	ephalopathy.	<u> </u>
	Tegaserod 7 1	5HT4 andagonist	/ / /	<b>ŏ</b>
	Tegaserod 7 1			- Â-
	Lubiprostone			
	>CLC-2 ( Type-7	2 Chloride Cham	rel activator)	<b>6</b>
	1			

. 0	
8	Page No. 165  Date: / /
	Clina Matida (Guanulate - Cyclase - Caclinator)
	Cystic Fibrosis transmembrane conductance regulator Activator
	(CFTR activator)
	- V
	Crofelemer - Inhibitor of CFTR
	Crofelemer - Unhibitor of CFTR  > USE - HIV drug induced diarrhea.
	Antibiotic used for the of constitution in IBS:  Neomycin (Orally) > For the of Hepatic encephalopathy  Rifaximin > Pre-op Bewel Sterlization  Probiotics.
0	Neomycin ( orally) -> For E/t of Hepatic encephalopathy
<u> </u>	Rifaximin Pre-of Bowel Sterlization
	Probiotics.
<u> </u>	Rifaximun:
	Useful for -O IBS
<b>_</b>	3 Iraveller's diarrhea
Ò	^
	(4) Pseudomembranous colifis.
	# Om Ht at object induced and which
<u> </u>	# For the of opioid induced constipation:  Methyl nalliexone (S/c)  Alvemopan (oral)
	Municipal (Diol)
<b>O</b>	Harampun (om)
<b>6</b>	Diarrhea in IBS:
	5HT3 antagonist for Ht of diarrhoea in IBS:
9	Aloselron
	Ramosetron
<u>,                                    </u>	Cilancetron
. 6	Alosetron - Rarely cause dangerous problem
•	Hoselron - Rarely cause dangerous problem It cause Ischemic colifis
<b>-6</b>	4 So withdrawn

Page No.	
	-0-
- But it use-give è great caulion & Informed consent.	0
- Ouly in female	Õ
	0_
Other drugs for diarrhoea:	<b>&amp;</b> —
O/her drugs for diarrhoea: Cholestyramine resin	0
Opéoid for déarrhoea!	
Diphenoxylate + Atropine => Control addiction.	<u></u>
Codeine.	-
For t/t Abdominal pain:  Anticholinergic drugs 7 Muscle relaxant  Quispramine property.	<b>®</b>
Anticholinergic dreigs 7 Muscle relaxant	<b>O</b>
Quiprauine property.	<u> </u>
	•
Cholecysto Kinin anlagonist:	•
Cholecystokinin anlägonist:  Lorghunide Inhibits GI motility  Loxighunide V	Ô
Useful for IBS (diarrhoea)	ă
	100
	**
	<b>9</b>
	<b>O</b>
	•
	<b>6</b>
	٥
	•
	<b>.</b>

		<b>V</b>
	عا	age No. ¹⁶⁷
	<del></del>	ate: / /
-	A DAMAUZAL A CTHMA.	
0	BRONCHIAL ASTHMA	
<b>(</b>	Melty 1 Xanthines - Amino phylline Br	onchectila for
<u>a</u>	Theophylline	
<u> </u>	MAO - Adeno sine antagonism - lead to	
	MAO – Adeno sine antagonism – lead to Non-selective PDE inhibition	0
<b>6</b>	Side effect . Proposed mes	chanism
	Mausea & Vouithing 7	
- Č/	Headaches -> PDE4 unhi	bition
	Gastric discomfort	
	V	
•	Diuresis ] -> A1 receptor au	rfagoursur
6	Epileptic seizures	0
	Cardiae arrhythmiae -> PDE3 inhibition	~
	A, receptor an	tagonesiu.
		<i>0</i>
<b>6</b>	# M3 Blocker > Bronchodilalore	
	# M3 Blocker > Bronchodilatore  B2 agonist > M/c for acule Asthura	
	. , , , , , , , , , , , , , , , , , , ,	
	Leukolrine anlägonists:	
<b>(3)</b>	Arachidonec Acid	
	√ 5 lipo onygenase	
	LTA4	
	LTB4 LTC4 Cust	eine LTz
<b>W</b>	1	Receptor
0	BLT LTD4	
0	Receptor V Cyst	eine LT,
<u></u>	LTEq	Receptor)
_	·	

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Lipooxygenase Inhibitor	
LILLUON	
4) Not used booz Hepatilis.	
Leukolrene antagonist:	
Zafirlukast	
Montelukast	- 6
Pranlukast	
Chronic Cherapy cause - Chrug strauss Syndrome	<u>@</u>
70	<b>©</b>
Headache	
Eosinophilia	
Vasculitis.	
$\checkmark$	
For t/t: MEPOLIZUMAB	
(IL-5 antagonist)	
Mast cell stabilizers:	
Sodicius chrowoglycale	
Nedocromil	
Kelötifen (Additional Antihistaminic prope	efy)
	<i></i>
Monoclonal antibodées:	
Omalizamab -> IgEantibody agonist.  L> S/c, Hypersensitivity.	
	<u> </u>
Newerdrug - Reslizumab	
Newerdrug - Reslizumab  Mepolizumab (ILS antagonist)	
-7-0	
	•
	<u></u>
·	-7

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-			Date: / /
	PDE inhibitors:	*	
		PDE inhibitors	
Ö	Meltyl xanthines	PDE I, II, III, IV	Aslhura
•	Cilonilast, Roflymilast	PDE IV	As/heña
<b>-</b>	Aprenilast	PDE IV	Aclive Psorialic aethritis
	Amirinone, Milrinone	PDE III	CCF
	Sildenafil, Verdenafil 7	PDE V	Ereclile dysfunction
	Tadalafil	Manusetechia	(1-0
0		Non-selective	PVD
- <u>6</u>	Pentoxyphylline Cilaotazol	PDE III	PVD
	Vinpoceline	PDE1, Vasodila	for Parkinson,
<b>6</b>			Alzheiner's ds.
0			
<b>6</b>			
á			
			;
	•		
		EXPECTORANTS	
•	Mucolylics:		
Ò	Carbocysteine Methyl cyster Erdosteine	2/	
	Methyl cyster	ne	
	Erdosteine		
	Brouchexan	e	
	Bromohexan Dorsane alf N-acetyl cys	tha	
0	N-acetyl cus	teine.	
- <del> </del>	Cough suppressan	<i>t</i> :	
•	Codiene		
0	Phol codiene		
Ö	Phol codiene De xtro wethor	bhan.	
<u> </u>	/ / / / / / / / / / / / / / / / / / / /		

Page No.	Ó
Date: / /	
Antihis famines	
	•
1st Generation 2nd Generation	Ŏ
-> Antihistaminic	
+ Anti Cholineegie action	
	-
USE: Allergic cond ⁿ y	•
Insect bite /	0
EPS . 72	
Motion sickness	- <b>ó</b> -
1 Generalion drugs:	
CPM (Chlorphenaramune Maleate)	•
Promelhazine (Most sedalive, Highest anticholinergie)	٥
Dophenhydramine	<b>6</b>
Cyclizine	Š
Meclizine (Useful for Sex sickness)	
Cyproheptadine (Antihistaminic + Anticolinergic	
+ Antiseritonergic action)	Ö
. 1	
Appelizer, Vieful in migrane	
Cause Serotonin Syndrome.	
Hydroxyzene (Antihistamine + Anti-anxiely)	
Hydroxyzene (Antihistamme + Anti-anxiely)  > produces metabolite - Celrizine.	•
Donepin - Given topically (for itching)	Ö
> TCA - Atopic dematitis, Lichen sumplex	<b>6</b>
Cinnarizine (H, +M+5472)	
→ Use in Vertigo	
Betahistine (Histaminergic drug	) 🍎
	Ô

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	Date: / /
	2nd Generation drugs:
-	Terfenadicie Z - Cruses QT prolongation
<b>6</b>	Astemazole Withdrawn
6	Metabolite Ebastine -> Still available
-	- Salva and the
	Fexogenadrine
<b>6</b>	Celliquie (Metabolite of Hydroxyzine)
	Levocelrizine
	Azelastine (Maximum topical, nasal spray)
	Mezalastice
0	Acrivasten
	Active (Lorafidine (Longest)  Active Destorafidine
À	
	Rupatidure (Platelet activaling factor antagonism)
	1 and batant a 11 days
-6	Lexipatent for the of Acute Apapant pancreatilis
0	Aparant Paucreatilis
, ·	Third or tilinforming:
9	Topical antihistamines:
2	Azelastine — Nasal spray  Olopatadine — Nasal spray,  U Ophthaluic drop,
0	Ocopafadine - Nasal spray,
	Ophthalauc drop,
	Mast cell stabilizing Oral
	Alcaffadine, Epinastine - Eye drop.
-0	
	H3 autagonist : unverse agonist:
<b>A</b>	Hz antagonist! inverse agonist:  Pitolisant (Tiprolisant) -> Orphan drug.  L> T/t of Naocolepsy
	-> T/t of Naocolepsy
0	V

Page No.  Date: / /	}*
Prostaglandins	
Prostaglandins PGE1:	6
Misoprostol:	6
- Useful for T/t gastric ulcer (NSAID viduce	d) •
- USEA ROY US GRILDAI	
- Terafogenicity -> Mobeious Syndrome	
Alprostadil	•
- Vasodilator	
- Useful for Érectile dysfune" (Gwen injecte	26/e)
- Useful for Erectile dysfune" (Gwen injecter) - Useful for maintain patency of duction ar	feriosas.
PGE2:	
Dinoprostone	
Useful la almina	
Useful for abortion.  Entrostil 7 Walle for the of Good = whom	<u> </u>
En prostil ] - Useful for t/t of Gastric ulcer Rioprostil	<u>.</u>
, , = -	Ô
$PGF2\alpha$ :	
Carboprost	<b>.</b>
USE: Post partum Hemorrhage (PPH)	0
Dinoprost	6
Dinoprost  > USE: Ulerine contracting agent for abor  cause platenoprost 7 - Useful for Glaucoma	tion.
	Â
Ires pigment Bimatoprost	
Z Traveprost By promoting drainage	
Causes Unoprostone via Uveoscieral route	<b>6</b>
Hypertrichoses of eyelash	
of eyelash	

•	
<b>6</b>	
<b>8 8</b>	Page No. 173
	Date: / /
	PGI2: Prostacyclin
. 0	Epoprosfenol 7 - Useful for 1° pulm. HTN Treprosfinil
. 6	Beroprost
	Glioprost
	- Couples
0 0	David wood for 10 hiller HTN1:
<b>9</b>	Orug used for 1° pulm HTN:  O Inhaled NO - Vaso dilalor
9	3 PDES blockers → Sildenafil, Tadalafil.  (B) Endothelin, receptor blocker → Boseptan.
<b>9 (9</b>	(€RBi) Bosentan 7 (ERBi) Ambresentan Hepatotonic
9 🐞	
	Maciféfan J
	Direct quanylate cyclase inhibitor → Riociguat
9 6 9 6 9	Chinociquat.
	$6 PGI_2 \rightarrow Epoprosterol$
.0	Treprostinil
	Beroprost.
<u> </u>	D Handrig - Colonil and Product in south
20	(+) New army -> suexi pag (Prostacycline receptor agonist)
	<ul> <li>→ New drug → Selexipag (Prostacyclure receptor agonist)</li> <li>→ Useful for tft of 1° pulm HTN.</li> <li>(8) Rho kinase inhibitor → Fasudil</li> </ul>
<b>6</b>	(8) I NO KINUSE INNISE FOR -> FUSILELL
<b>©</b>	
	•
\$ 0°	
<b>&amp;O</b>	
80	·
<b>9</b>	
<b>E</b>	
<b>S</b>	
- O	

	Page No.
	Date: / /
NSAID	
Blocks both	
COX-1 COX-	-2
Aspirin:	
Analgesic 7	
Anti pyrelic aclion - Allare pr	operly of all NSAID.
Anti inflammatory	
Analgesic  Anti pyrelic aclion — Allare pr  Anti inflammatory  Prevent Colonic & rectal cancer	
Aspirin + Nacotinic accd => Prevent	flushing.
	<i>V</i> (
C/I - in t/t viral fever in chi	Idren (12 yn.
Cause Reye's synd	drome.
· Liver damage	
· Encephalopa	thy
· Jebréte illne	els
•	<u> </u>
M/c S/E of Aspirin & other NSAID: - Gastric Ulcer.	
- Gastric Ulcer	
Non-selective COX inhibitor	
Indouvelhacin - Anti inflam	unalony
Non-selective COX inhibitor Indownelliacin - Anti inflam Use: - Frontal her	adache
+ Closure of a	ductus arteriosus eyndrome
L Batter's	syndrome

ð	Page No. 175
	Date: / /
_	Phenylbufazone
	Phenylbufazone  - may cause bone marrow operation  Suppression.  Ibuprofen - Safe in Children
<u> </u>	suppression.
<b>6</b>	Ibuprofen - Safe in Children
<u> </u>	
<u> </u>	Mefenauce acid - Useful in dys menorrhoea
<b>9</b>	
9	Piroxi cam - longest acting NSAID.
<u> </u>	
	Preferable COX2 inhibitor:
*	· V. Ni muselide
•	· Ni'muselide  Severe  Lause hepatotoxity in chi/dren (Unsafe)  · Naturnetone
	· Nature fone
Ô	· Etodolac
	· Melo xicam
	Highly selective COX-2 inhibitor:
	Roseconib 7
0	Rofeconib Risk of developing HTN & CCF
Ö	Valedeconib
	Etoriconib
0	Parecoxib
•	Lumiracoxib.
•	
0	Cox-3 blocker
<u> </u>	Paracefaurol
	Overdesel Causes Liver toxicity.
<del></del>	Other analgesic: Other than NSAID & opioids.
<b>Ø</b>	Zi conotide (Conotoxin)
6	N type CCB
<i>6</i>	- N type CCB - Intratheeal given

For anti-inflammalory action of Aspirin → 300-400 Ming asperies required € Coure Purc aced  8 > 2 gm → Gastric perforation Page No.	
asperier tequired & Course Turke aked	
° > 29m → Gastric perforation. Page No.	6
Date: / /	
Nefopau - Aunie uptake inhibitor	-
Nefopaur – Auwie uptake inhibitor Na† Channel blocker	
	<b>®</b>
Sativex - Cannobinoid Suse - Cancer pain	
4 USE - Caucer pain	<b>(A)</b>
·	
Em Enlonox - N20+02	¥
Grand - N20+02 Grandess labour.	0
Drug useful for t/t of Gout:	
Acute Gout:	•
Give NSAID or, Steroids or, colchicine	•
Cholchicine -> Acting by disruption of nucrofubule	
	<u> </u>
Neutrophil drunken walk.	
YE - Diarrhoea (Bloody)	0
YE - Diarrhoea (Bloody) Unsafe in RF	•
NSAIDS -> Naprexen	-
NSAIDS → Naprexen Indo methacin	
Sulindac	0
# Aspirin is C/I for gouty arthritis.	•
Drug used for chronic gout:	Â
Drug used for chronic gout: L'anthine oxidase unhibetor:	-
Allopurinol	
Febuxosat.	•
6-Mercapto purine.	Ø
· / / · · · · · · · · · · · · · · · · ·	

•	Page No. 1777  Date: / /
	Uricosurics:
	Probenació (Vasafe in RF)
Ö	Sulfin pyrazone
Ó	Benzbromarone
<u> </u>	Lesinurad.
-	
	Other drug having uricosceric acliens are-
	Losarfan
<u> </u>	
<u> </u>	Jenofibrate Ambodipine
	/
•	Newer drug:
	For aggressive control of Gouly arthritis
	For aggressive control of Gouly arthritis
<b>6</b>	· Rosburicase 7 cause Rapid metabolism · Pegloticase – of uric acid
	· Pegloticase - of wrice acid.
	<i>V</i>
	Newer drug for T/t of RA: Normal - Cytokine balance
<u> </u>	Normal - Cytokine balance
<b>6</b>	Pro-inflammatory = Anti-inflammatory Cytokines cytokines.
	Pro-inflammatory = Anti-inflammatory Cytokines cytokines.
	V
<b>©</b>	TNFa, IL-1, IL-6
9	
<u> </u>	TNF & blocker: Test
•	Inflinimab (i.v) 7 Before giving TNFA blocker
P. 1	Adalimumas (9c)  Purified Protein derivative
<b>8</b>	William Control of the Control of th
	400 milinas (S/C)
<b>6</b>	Certolizamas (4c) Skinteot

Date: / /	) 
- All are unsafe in Hepatitis B virus infected pt.	
	<b>9</b>
Analogue of Interleukin 1 (21-1) Receptor Antagonist:	
ANAKINRA	
	<b>5</b> —
1L-6 blocker:	<u></u>
To cilizumab	
Saritumab	
Newer drug - Riturnab (CB20 receptor antagonist)  Lause PML (Progressive Multifocal Leucoencephalopathy:	<b>5</b> _
Newer drug - Rifuxunab [CB20 receptor antagonist)	5
- Cause PML (Progresowe Multifocal Leucoence-	5
Targeting against	Ď.
Abalacept 7 CD 80/86 Receptor -	*
Pargeting against  Abalacept 7 CD 80/86 Receptor   Balatacept 7  USE - RA	
4 USE - RA	<b>5</b> -
The side of the second second	٦
Totacitinis - JAK 1&2 blocker 4 USE-RA.	5
	Â
Leftunouide	<u> </u>
4) Inhibit dihydro orotale dehydrogenase ( GE - Hepatotoxic GI - Pregnancy.	· .
SE-Hepatofoxic	<b>&gt;</b> -
GI-Pregnancy.	<b>D</b> -
	ŝ
	<b>3</b> —
	9
	6
	<b>5</b>
	<u> </u>
	-

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ANTI CANCER DRUGS
Cell cycle: M
G2 3/ G0
19%
40% \G,
39%
5
DNA synthelu.
G, (40%) -> Minor development take place.
5-phase → DNA synthesis (39%) By < Topoisomerase 11 enzyme
(39%)  By Topoisomerase 11 enzemme  Jolic acid, Purine, Pysiunidine
Gr (19%) -> Extra development take place.
By Topoisomerase
M(2%) -> Multiplication
3011-79-1-001000
Dura activa on G. phage:
Drugs acting on G, phase:
L-Asparaginase (euzymé)
Steroids.
L-Aspasagine - Oregin from E: Coli (Naturally occuring)
- Useful for All
SE - Hemorrhagic panereatiles
Hyper coagulation
No significant Myelosappuession.
1 Lacubolic
Thromboliubalia Complications.

0

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0

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	Page No.	180
	Date: I I	
Druge acting on S-phase:		
Druge acting on S-phase:  Anti-metabolites		
Epi podo phyllo toxins		•
Epi podo phyllo foxins eg: E70POSIDE		à à
TENEPOSIDE		
		-
Drugs acting on G2 phase: Topo isc	uerase-l inhit	vitos.
Camptothecine (IRINOTECAN - Cholino	minelic prope	erty.
TOPOTECAN	↓	À
4	E-Diarrhoea.	
	(doce related t	onicity)
Bleomycin / Anticancer -	+ Autibiotic)	•
		•
- All auticancer + antibootics are	C-cycle non-s	becific 💣
except Bleorycin.	· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·		
Drug inhibiting mitosis:		
Vznka alkaloids - Vznblastin	7 plant. origin.	•
7 00000 7 400		•
Vinorelbine		
7		
Jazanes - Paclifaxel		
Docetanel		
Ca bazitaxel.		<u> </u>
Names de la Qual 100		
Newer drug — Ixabepilone U	seful for Breas	t G.
		ě
For HERZ + uc Breast Ca - TRASTUZA		
For & HERL & HERZ - TK Block	er - LAPATINI	3.

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Date: / /

- 500	
	Newer drugs in cancer Cherapy:
•	Igrosine Kinase inhibitor (TKi's):
, 0	Jyrosine kinase Receptor - EGFR (HER-1)
, Ö	VSPR
<b>6</b> —	PDGFR
	Tki's acling EGFR blocker:
	Geficinib 7 - Useful for the of Melastatic Small
•	Gefifinib 7 - Useful for tot of Melastatic Small Exlotinib Cell lung Ca.
<u> </u>	Afatinib > Also useful for Pancreatic Ca.
·	
	DOC: Geucitabine
	SJE - Dysmorphic eyelashes (Erlotinib)
	VGFR blocker:
	Sonaferib - Useful for RCC, HCC Sunitionib - Useful for RCC, GLST
	Lenvatinib - Useful for DTC
	V = V
	PDGFR blocker
96	Imatinib - DOC for CML
<u> </u>	Useful for GIST (C-kit)  1st gen. Tki
) <u> </u>	1st gen. Tki
	due to alleration of c-kit - Pesistance
\$	due to alleration of c-kit-Resistance  J. T/t of Resistance CML  DASATINIB  2nd gen. Tki  NILOTINIB
0	DASATINIB 72
20	NILOTINIB - And gen. The
0	Multi-largeted Tki;
	Vandetanib - Useful for Medullary Ca Thyroid.
•	> Target against EGFR & VGFR.
•	Vandetanib - Useful for Medullary Ca Thyroid.  Larget against EGFR & VGFR.  Axitinib - Targeting against VGFR & PDGFR  Pazopanib - Useful for RCC
Ó	Pazopanib Useful for RCC
- -	

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# TRASTUZUMAB > For HER-2	tve Breast Ca.
# LAPATINIB → Against HER-18	2 tue Breast Ca.
# All the Tki are taken orally.	
Common SJE - G1 loxicity (Nausea, Vomit	Hing Diarrhoeal
Any drug block EGFR causes HTM	/
Monocloual autibodies (MABS	
TRAS (TUXU) MAB)	•
V V	•
Target Source Tu = Tumor Zu - Humanised	
Li = Lowering Xi - Chemerical (Non cumunity	human ez Mice)
ci = Target circulation.	•
vi = Virus.	•
BASILIXIMAB - Target ag	tagainst IL-2
PALLVIZUMAB - Target a	egainst RSV.
Irastuzumab -	
Jarget against HER-2 reco	eptor •
Useful for HER-2 +ve Brei	ast Ca.
# Most of MAB given by i.v. infusio	en e
Specific $S \in \mathcal{A}$ Cardiouyope	athy •
Specific $S \in \mathcal{S}$ Cardiouyope Infusion re	eaction.
	<b>)</b>

•	•
•	
<b>a</b>	Page No. 183
-	Date: / /
	Riluximab:
	Jarget against CD20 on B-cell.
•	Useful for B-cell lymphoma
Ô	Other uses: C = CLL
	H = Hemolytic anemia
-	I = Idopathic thrombocytic Purpusa (ITP)
	N = NHL (Non-hodgkin Lymphoma)
	I = Idopathic thrombocytic Purpusa (ITP)  N = NHL (Non-hodgkin Lymphoma)  A = Arthritis (RA)
0	Myasthenia Gravic.
) 	
	M/c S/E - PML
•	Bevacizumas: Jarget circulation.
	Target against VGFR
	Target against VGFR Useful for Metastatic Colorectal CA (iv)
	0 0
	$M/c \rightarrow 5FU$
	Useful for RCC & Doubelic Relinopathy.
	- V
<b>&gt; &amp;</b>	i.v. Intravitrous
	SE- HTN
	· · · · · · · · · · · · · · · · · · ·
<u> </u>	Newerding: RAMUCIRUMAB
6	- Jarget against VGFR
20	Newer drug: RAMUCIRUMAB  - Jarget against VGFR  - Vieful for Gastric Cancer.
. 0	
2 1	BRENTUXIMAB
9 W	- Parget against CD80 on B cell.
9	- Vieful for Hodgkun lymphoma.
8	

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Date: / /	- 24
Omalizumab - Jarget against IgE → USE: Bronchial	
As thura (BA)	6
Resilzumab 7 - Jarget against ILS -> USE:BA Mepolizumab	Î
Mepolizeunas	
Denozeumab - Jarget ag ainst RANK-L > Osteoporosis.	٧
	•
E culizumab — Parget against C5 → Paroxyx mal nocturnal hemoglobi nuria.	Ò
hemoglobinusia.	
Evolocumab 7 - Parget against PCSK9 -> Libidlowering.	- 69 -
Evolocumab 7 - Parget against PCSK9 → Lipidlowering. Alirocumab	8
	•
Ibalizumat - Jarget against HIV (entry whitetor)	Ă
	<u>*</u>
Macular degeneration (MD)	_ <b>©</b> _
Macular degeneralion (MD)	•
Dry type Wet lype	
less blood supply Age related MD (ARMD)	6
Drugs useful for Wet type MD:	-5-
Druge useful for Wet type MD:  Photo dynamic therapy  VERTEPORFIN — i.v.	
VERTEPORFIN - i.v.	٥
VEGF unhibitor:	_ <del></del> _
Bevacizumab 7-Intravitoral inj.	
Ranibizumab	<b>A</b>
Pegaptanib Aflibercept	
	_

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0	
•	Drug for Vitreo macular degeneration: Ocriplasmin (Newer drug).
Ò	Ocreplasium (Newer drug).
<u> </u>	
36	# Buils eye Kelinopathy - Caused by Chloroquine.
	Trustalline Maculopathy - Caused by Tamoriten.
0	# Bull's eye Relinopally - Caused by Chloroquine.  Crystalline Maculopathy - Caused by Tamoxifen.  Field of Vision defect - Vigabatrin.  Whorl-like pattern - Already done.
	- While - Hereday done.
á	Kauser-Heisches sins - Wilson's de Cesulobianin
<u>`</u>	Rayser-fleischer ring — Wilson's ds (Ceruloplasmin
	deficiency).
0	Chololina Agonte.
1	Chelaling Agents.  Metal T/t
Ö	Copper Penicillamine (SLE, optic Neurifes)
â	Trienline
-	Zinc sulphate (Safest)
	Zinc sulphate (Safest) Potassium Sulfide
•	
	Hepatitis or curhoses Zinc  C decompensation
•	c decompensation
- <b>a</b>	
	Mild-Moderate hepatic Trienline + Zn
	Mild-Moderate hepatic Trienline + In  decompensation
•	
•	Neurological or Psychiatric Tetrathiomolybolate + Zn.
	Symptom
	for maintanence in Zunc
6	For maintanence in Zinc  pregnancy & Children
	V
6	
6	

Metal T/t  Lead BAL 7  Arsenic BAL C/I in Iron & Crdmium poisoning:  Mercury BAL  Iron Desferioxamnie  Descriptione  Descriptione  Descriptione  Descriptione		Page No.
Arsenic BAL C/I in Grow & Credition  Mercury BAL  Grow Desperionance  Desperiphone  Denrasonance  # DOXORUBICIN  S/E - Cardiony opathy  Antidote for Donorubicin possocing — Denrasonome  Anti-metabolites:  Anti-metabolites:  Anti-cancer + Immuno suppressive  Drug acting against folic acid:  Meto frenate  Pemetranale — Oseful for Mesothelioma  Jrimetrenate — Nocic  Pralatrenate — For T-cell lymphoma  Metrotrenate:  Modo: Metrotrenate actively perefrate into cancer cell  it inhibit DHFR, Utimately inhibiting  DNA Synthesis, So stop 5-phast of cell cycle.		Date: / /
Arsenic BAL C/I in Iron & Credicium  Poisoning  Mercury BAL  Iron Desferioraminie  Deferiprone  Derrasoxane  # DOXORUBICIN  S/E - Cardiomyopathy  Antidote for Doxorubicin poisoning - Dexrasonome.  Anti-melabolites:  Anti-cancer + Immuno suppressive.  Drug acting against folic acid:  Melo Frenate  Pemeliaxate 7 - Useful for Mesothelioma  I rimetrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate actively perefrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop 5-phast of cell cycle.	Metal T/t	
Arsenic BAL C/I in Iron & Credicium poisoning  Mercury BAL  Iron Desperionamine Descriptione Descriptione Descriptione Descriptione Description  # DOXORUBICIN  S/E - Cardiomyopathy Antidote for Donorubicin poisoning - Dentrazonome.  Anti-melabolites: Anti cancer + Immuno suppressive.  Drug acting against folic acid: Melo frenate  Pemelranale 7 - Useful for Mesothelioma I rimetrenate I NSCLC Pralatrenate - For T-cell lymphoma.  Melhotrenate:  Melhotrenate actively penetrate into cancer cell it inhibit DHFR, Ublimately inhibiting DNA Synthesis, So Stop 5-phase of cell cycle.		
Mercury  Desperionaumie  Deperiprone  Anti-defe for Donorribician possoning — Deperiprone  Anti-melabolites:  Anti-melabolites:  Anti-melabolites:  Anti-cancer + Immuno suppressive  Drug acting against folic acid:  Melotrexate  Pemeliaxale 7 - Useful for Mesothelioma  Jrimelrexate — NSCLC  Pralatrexate — For T-cell lymphoma  Melhotrexate:  (N) DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ublimately inhibiting  DNA Synthesis, So Stop 5-phase of cell cycle		
Mercury  Desperionaumie  Deperiprone  Anti-defe for Donorribician possoning — Deperiprone  Anti-melabolites:  Anti-melabolites:  Anti-melabolites:  Anti-cancer + Immuno suppressive  Drug acting against folic acid:  Melotrexate  Pemeliaxale 7 - Useful for Mesothelioma  Jrimelrexate — NSCLC  Pralatrexate — For T-cell lymphoma  Melhotrexate:  (N) DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ublimately inhibiting  DNA Synthesis, So Stop 5-phase of cell cycle	Arconic BAI GI	in Iron & Codmium
Jran Desferioxannie  Descriptione Descriptione Descriptione Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  ## DOXORUBICIN  S/E - Cardiomyopathy  Autichete for Doxorubician poisoning - Descriptione  Autichielabolites:  Antichielabolites:  Ant	777200	horizona:
Dron  Desperience  Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  Descriptione  # DOXORUBICIN  S/E - Cardiomyopathy  Auticote for Doxorubicin possioning - Descrazonome.  Auti-unelabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melo trexate  Pensligsale 7 - Useful for Mesothelioma  Jrimeliexate - Tor T-cell lymphoma.  Meltotrexate:  DHFR DHFR > THFA  MAO: Meltotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA synthesis, So Stop 5-phase of cell cycle.	1000000	- possing
Descriptione  Descriptione  Descriptione  Descriptione  # Doxorubicin  SJE - Cardiomyopathy  Autidote for Doxorubicin possioning - Descriptione  Anti-melabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melotrexate  Pemeliaxate 7 - Useful for Mesotheliama  I rimetrexate - For T-cell lymphoma.  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	Werking 1842	Ù
Descriptione  Descriptione  Descriptione  Descriptione  # Doxorubicin  SJE - Cardiomyopathy  Autidote for Doxorubicin possioning - Descriptione  Anti-melabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melotrexate  Pemeliaxate 7 - Useful for Mesotheliama  I rimetrexate - For T-cell lymphoma.  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	O Dantoniana	
# DOXORUBICIN  SJE - Cardiomyopathy  Antidote for Doxorubicin possoning - Denrazonome.  Anti-melabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melo trexate  Pemeliaxale 7 - Useful for Mesothelioma  Jrimetrexate - For T-cell lymphoma.  Meltotrexate:  M DHFA DHFR > THFA  MAO: Melto trexate actively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	- //	e •
# DOXORUBICIN  SJE - Cardiomyopathy  Antidote for Doxorubicin possoning - Denrazonome.  Anti-melabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melo trexate  Pemeliaxale 7 - Useful for Mesothelioma  Jrimetrexate - For T-cell lymphoma.  Meltotrexate:  M DHFA DHFR > THFA  MAO: Melto trexate actively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	Deferiprone	
S/E - Cardiouyopathy  Autidote for Doxorubicin fousining - Dexrazorome.  Auti-unclabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melo trexate  Pemetraxate 7 - Useful for Mesothelioma  Irimetrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Melhotrexate:  Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle.	Derrazoxane.	
S/E - Cardiouyopathy  Autidote for Doxorubicin fousining - Dexrazorome.  Auti-unclabolites:  Anti cancer + Immuno suppressive.  Drug acting against folic acid:  Melo trexate  Pemetraxate 7 - Useful for Mesothelioma  Irimetrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Melhotrexate:  Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle.		
Anti-melābolites:  Anti cancer + Immuno suppressive.  Drug acling against folic acid:  Melō frexate  Pemelraxale 7 - Useful for Mesotkelioma  Jrimelrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Meltofrexate:  M DHFA DHFR > THFA  MAO: Melto frexate aclively penetrate into cancer cell  it inhibit DHFR, Ushimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle	# DOXORUBICIN	
Anti-melābolites:  Anti cancer + Immuno suppressive.  Drug acling against folic acid:  Melō frexate  Pemelraxale 7 - Useful for Mesotkelioma  Jrimelrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Meltofrexate:  M DHFA DHFR > THFA  MAO: Melto frexate aclively penetrate into cancer cell  it inhibit DHFR, Ushimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle	S/E - Cardiouyopathy	
Anti-melābolites:  Anti cancer + Immuno suppressive.  Drug acling against folic acid:  Melō frexate  Pemelraxale 7 - Useful for Mesotkelioma  Jrimelrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Meltofrexate:  M DHFA DHFR > THFA  MAO: Melto frexate aclively penetrate into cancer cell  it inhibit DHFR, Ushimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle	Autidote for Donorubicin posson	ing – Dexrazonone. 🛎
Anti cancer + Immuno suppressive  Drug acting against folic acid:  Melo trexate  Pemetraxate 7 - Useful for Mesothelioma  Jrimetrexate NSCLC  Pralatrexate - For T-cell lymphoma  Melhotrexate:  (N) DHPA DHFR > THPA  MAO: Melho trexate actively penetrate into cancer cell  it inhibit DHFR, Ushimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle.	$\nu$	<i>d</i>
Drug acting against folic acid:  Melo frexate  Pemetraxate 7 - Useful for Mesothelioma  Jrimetrexate NSCLC  Pralatrexate - for T-cell lymphoma  Melho frexate:  M DHFA DHFR > THFA  MAO: Melho frexate actively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle:	Auti-melabolites:	
Drug acting against folic acid:  Melo frexate  Pemetraxate 7 - Useful for Mesothelioma  Jrimetrexate NSCLC  Pralatrexate - for T-cell lymphoma  Melho frexate:  M DHFA DHFR > THFA  MAO: Melho frexate actively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle:	Anti cancer + Immuno supp	ressive.
Melo frexate  Pemelraxale 7 - Useful for Mesothelioma  Jrimelrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate aclively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle.		•
Melo frexate  Pemelraxale 7 - Useful for Mesothelioma  Jrimelrexate NSCLC  Pralatrexate - For T-cell lymphoma.  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate aclively penetrate into cancer cell  it inhibit DHFR, Ustimately inhibiting  DNA synthesis, So Stop S-phase of cell cycle.	Drug acting against folic acid:	Ď
Pemeliaxale 7 - Useful for Mesotheliama  Jrimeliexate NSCLC  Pralatrexate - For T-cell lymphoma  Melhotrexate:  M DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ushimately inhibiting  DNA Synthesis, So Stop 5-phase of cell cycle.		
Pralatrexate For T-cell lymphoma.  Melhotrexate:  (A) DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.		Manufaliana
Pralatrexate For T-cell lymphoma.  Melhotrexate:  (A) DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	Pencerus = 0.5 que 701	MEAURECOMA
Melhotrexate:  (N) DHFA DHFR > THFA  MAO: Melhotrexate actively penetrate into cancer cell  it inhibit DHFR, Ubtimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.		201
N DHFA DHFR > THFA  MAO: Melho trexate actively peretrate into cancer cell  it whitsit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	Pralafrexate - for 1-ce	el lymphoma.
N DHFA DHFR > THFA  MAO: Melho trexate actively peretrate into cancer cell  it whitsit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	A A 4 4	
MAO: Melho trexate actively penetrate into cancer cell it inhibit DHFR, Ustimately inhibiting  DNA Synthesis, So Stop S-phase of cell cycle.	Nyethotrexate:	<b>_</b>
DNA synthesis, So stop s-phase of cell cycle.	$(N)  DHFA \xrightarrow{\Sigma \cap X} IHFA$	
DNA synthesis, So stop s-phase of cell cycle.	MAO: Melto trexate actively penetro	ate into cancer cell
DNA synthesis, So stop s-phase of cell cycle.	it inhibit DHFR, USHimat	ely inhibiting
	DNA Synthesis So Stop S-pho	ish of cell cycle.
# Resistance due to alleialion/unitation of DHFR.	<i>U</i> , , , , , , , , , , , , , , , , , , ,	U U
	# Resistance due to alleialion/unital	ion of DHFR.

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Specific antidote - Jolinic acid or Leucovorin antagonist.

Polinic acid can't be given in Renal failure.

GLUCARPIDASE - Newer drug useful for tft of Melhotrexate foxicity in a bt c empaired kidney function

USES of MTX: Anticancer: Doc for Choriocarcinoma. Useful for Osteosarcoma

Quununosufpressant:

RA (DMARD, low dose 7.5 mg/wk Psoriasis

long ferm therapy.

Chorio CA Abortion

NHL

Chron's ds

Myelocuppression (M/c)

Mucosal damage (G1 toxicity)

Liver damage (on chronic therapy - In RA)

Liver damage (on Chronic therapy - In RA)

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Antibiotic causing Crystal	-
Ciprofloxació (Alkaline)	•
Sulfonamide (seidic)	<u> </u>
Antiviral (Indinavir -> HIV	<u> </u>
Causing Crystal Acyclovir	
C/I of MTx - Pregnancy.	
	•
Purine Anti melabolites:	<u> </u>
6- Thiognanine	6
6- Mercaptopurine	0
Fludarabine 7 - Useful for Hairy cell leukamia	
also useful for < Cladribine - DOC - Hairy cell likemia	•
Multiple Scherosis Pentostation	
→ Inhibiting Adenosine deaminase.	Ů.
6-Mercaptopurine:	<b>6</b>
6 - Mercaptopurine	À
HGPRT enzyme.	
•	•
6-Thiosinic Acid	<b>4</b>
2 10 11 2007	-6-
Cause of Resistance - Deficiency of HGPRT enzyme (Lesch-Nyhan Syndrome)	
(Lesch-Nyhan Syngrome)	Ö
	Ø's
6-MP normally undergoes enactivation (metabolism)	
by HGPRT.  If we give Xaulhine onidase unhibitor - 1 plasma level of 6MP.	
of 6MP.	0
When we give Allopurinol & 6MP	
When we give Allopurinol = 6MP reduce the close 50-75% of 6MP.	*
7 0	â

6	INFX - USE: HBV, HCV
	INFY - USE: ch. granulo matores ds.
	Date: / /
0	Drugs useful for Multiple Sclerosis (MS):
0	
•	Disease woodifying drugs:  • Interferon Bela 14818
Ó	Glabramer Acetale
Á	Nalālizumab (d4B1 integrin) (iv once in
-	Acrelizumab (anti CD20) came PML
	Alentuzumab (Anticosz)
9	
	Miloxaulrone (Anticancer + Antibiotic)
<u> </u>	Cause Cardio foxicity.
	Fingolimod (oral)
	- Cause Bradycardia.
***************************************	Dalfampridine (oral)
<b>8</b>	△ Useful for Lambert Eaton Syndrome
	4 Useful en MS en un proving walking.
	Cladrabine (oral)
A	Terifluno mide (oral)
	→ derivative of Leflunomide  → Di-hydro protate
•	4) Di-hydro orbfate
•	4 Useful in pregnancy & MS
- <b>®</b>	Dimethyl fumerate
9	meta
à	Pyramidine Antibolites:
	Cylarabine (Cystosine asabinoside)  4 Cause Cerebellar ataxia.
<b>6</b>	5 Cause Cerebellar agazla.
	5FU  Ma we - Colorental Cancer
9	· M/c vie - Colorectal Cancer · Gwen € Levamisole
6	gwen C Levamosocc
0	Floxuridine
	Gencitabine (DOC for Pancreatic CA)
_	Capacitabine ( Cause Hand foot Syndrome)

Page No.	
Date: / /	_ <b></b>
Geuncitabin - Myelosuppression	
Ju like symptom Very potent Radio sensitizer.	0
DOC for Pancreatic Ca	
	_@_
Drug causing Hand foot Syndrome:	â
Capecitatine	-
S-FU	<b>**</b>
Doxorubicin	<u> </u>
1L-2	- <b>Ğ</b> -
Pemelerxed.	4
	*
Anti cancer Antibiotics:	2
Actinouyein D (Dactinomyein)  Causes Radiation recall phenomenon	
Causes Radiation recall phenomenon.	<u> </u>
	- <b>\$</b> -
Daundrubicin 7 - Anthracyclines	
Spectrum Donorubicu Inhibit Topoisomerase II	146.
Mitoxantrone	
> may cause Blue colour fingernails, sclera &urine	
Mitomycin	-6-
Bleonyein	Ó
Mithramyein (Phicamycin)  Uceful for Hypercalcemia.	-
Co Useful for Hypercalcemia.	
Doxoreibicin:	
	_6
- Causes dilated Cardiounyopathy (DCMP)	-
- Do no rubicin in presence of Iron from	<b>6</b>
T/t - Nexrazoxane + Alpha tocopherol (Vit E)	
T/t - Denrazonane + Alpha tocopherol (Vit E) 4 Antionidant	*
Iron chelator	

Ò	Page No. Date: / /
0	Mi fomucin:
R	- Useful for Unione Hadde Co
0	Mitomycin: - Useful for Urinary bladder CA.
Ô	Usually Intravesical theraby: BCG
<u> </u>	Voually Intravesical Cherapy: BCG For BCG resistance - Mitomycin
	Valrubicin
-	- Useful for laryngo tracheal stenais.
	- Useful for laryngo tracheal stenais.  due to Antifibroblastic action.
<b>6</b>	
<b>O</b> -	Bleomycin:
6	Cell cycle specific acting on Gr phase of Cell cycle.
	Cell cycle specific acting on G2 phase of Cell cycle.  M/c S/E - Pulm fibrosis.
~	U
	Bleomycin hydrolase is not seen in lung.
-	so large accumulation of Bleomycin in lung.
0	
Ó	Jupe I preumocytes - Necrosis/destruction  Jupe II " - Hyperplasia/ Metaplasia.
2	# Apricances drug à No muel rentere
177	Vinerictine - Course Parities of woundary
<b>6</b>	Bleomicin
Ô	# Anticancer drug & No myelosuppression:  Vincristine -> Cause Peripheral neuropathy.  Bleouyein  Asparaginase - Cause Pancreatitis  Hypercoagulation
•	Hypercoagulation
<u> </u>	of the state of th
6	
<b>**</b>	

	•	ļ	Page No.	
			Date : / /	
	Alkylating agents. Busulfan Noitro courear -> Lourusline			
	Busultan			•
	Nitrosourear -> Lourusline	7		
Highly liped	Semustin	$r \mid Z$	elayed Myelocupping	द्धाः
solicite	Carmusli	ine J	1 lant	
Heater key	Temozolamide -> also fo	r Mela	noma.	
Brain Timor	Streptozocin (Chemical			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Chlorambucil (USE: C		<i>J</i>	
	Cyclophosphamide, Ifosfo			
	Melphalan (Use for Mi		myeloma)	
	Procarbazuie, Bacarba	zine.	<b>V</b>	75
	Thiofepa			<u> </u>
	Mechlorethamine.			•
	← Cause Skin	Vesica	nt	•
			0.4	
Pro	carbazure –			<u> </u>
•	Disuffisam like reach		·	-
•	Among the alkylating agent	Proc	erbazine &	•
	Meighalan cause Second	ary Ca	neer.	<u> </u>
	Cyclophosphamide - Le	S Se	condary cancer.	
	MAO inhibitory action		<b>V</b> *	
	<b>(</b>			
Don	ge for Mulliple myeloma:			
(	Melphalan			•
	Thatidouide			
	Lenolidomide		* / 5/ 5 - >	
	Bortezonid (Profess	ome c	while for)	
	→ DOC			
	Punch out lesion.			*
				<b>6</b>

Į 🔊	
9	Page No. 193  Date: / /
0	
9	Cyclophosphamide (Amticancer + Juneurosuppressive):
	In liver it forms Aldo phosphamide
	In liver it forms Allo prospramuse
	Phone Acrolain (Toxic)
	Phosphoraunde Acrolein (Toxic) nuistard
•	DOC for Wegner's granulomatoris.
*	M/c S/E - Hemosrhagic cystotis
, _a	DOC for Wegner's granulomatoris.  M/c S/E - Hemorrhagic cystotis  L> Due to Acrolein
-	Autidote - MESNA
•	Supportive drug - Formatin
*	// N acelyl cysteine
<b>®</b>	N acelyl cycteine  (Carbo prost (PGF2d agonist)
	USE:
<del></del>	Paracelainol poisoning
	Kadioconliast
	Nephrotoxi city Mucolytic
9	Mucolyfic
<u> </u>	Cyclophosphamide Cause (SIADH)  Cardio-foxicity.
	Cardio-foxicity.
6	Hostamide.
40	Ifosfamide:  Active form – Acrolein
2	1 Antidote
)	MESNA
6	# Drug GI in Melanoma - LEVODOPA
•	
)_ <b>()</b>	
•	

<b>'</b>	Page No. 194
	Date: / /
Drugs for Multiple unyelowa:	
- Temozolamide	
-BRAF V600E inhibitor - Venu	crafenib 6
Dabn	zjerib •
- Temozolaunge -BRAF V600E inhibitor - Veund Dabn Traine	efini's
Newerdrug Nivol	
Pilia	ruumas 🐧
Aldest	Leukin – IL2 USE! RCC, Multiple Myeloma.
4	USE! RCC, Multiple Myeloma.
Busulfan:	/ /
Used for CML	<b>*</b>
SE - Pulm, fibrosis	5
Adrenal insufficiency	y · (Addoson's ds)
4 Hyperpi	g wentation.
() / / (	
Busulfan:  Used for CML  SIE - Pulm, fibrosis  Adrenal insufficiency  Lyperpli  # All alkylating agent action -	- N7 Guanine Residue
# All " are Cell	cycle non Specific.
SJE of Alkylating agent - Veno	occlusive ds of liver.
(Bi	occlusive ds of lives.  Add Chiari Lyndrome
	Ł O
Minim	ised by DEFIBROTIDE
	<i>(</i> )
- Peru	vanent sterlity
	•
	8

2	Least emetogenic - Vincristin
<b>0</b>	Chlorambucil
ê <b>Ö</b>	Page No. ¹⁹⁵
-	Date: / /
	Cisplalin:
•	Highest emelogenic
Ô	SIE - Oxotoxicity
Ô	Cisplalin:  Highest emelogenic  SJE - Oxotoxicity  Nephrotoxicity (dose limiting toxicity)
- A	Nephrotoxicity (dose limiting toxicity) Neurotoxicity
	Antidote - Amifostine.
<b>1</b>	0
Ô	Carboplatin:
<u> </u>	GE - Myelocuppression
-	<i>f</i>
	Oxaliplatin:
•	S/E - Neurotonicity
<b>6</b>	Ste - Neurotoxicity  Pharyngeal paraesthesia.
) <del>/</del>	
	Vincristine:
	S/E - Peripheral neuropathy. (Sensory & motor).
	STADH
*	Vesicant.
	Advantage - Less myelosuppressant
	Advantage – less myelosuppressant less nausea:
•	Vinblastine:
0 0	-Myelosuppression
<b>a</b>	0 //
	Taxane (Paclitaxal, Docetaxal):
	- Myelosuppression
	- Peripheral neuropathy (Glove & SOCK Neuropathy
<b>8</b>	- Allergy.
_6	
-	

Page No. / Date: / /	<b>(5)</b>
Role of hormones in Cancer:	
for all premenopausal women E ER+ve Cancer	
1st line choice is SERM.	
If Resistance quie SERD.	<u> </u>
# for postmenopausal women & ER +ve Breast cancer	
# for postmenopausal women & ER twe Breast cancer give Aromatase inhibitor.	
O	Û
#	<u> </u>
	<u>– á</u> –
	**
SERM useful for the of Breast Ca:	•
Tanonifen	•
Toremifen	<u> </u>
Doloxifen	- Ô
Raloxifene.	-
$\mathcal{U}$	•
Tamonifen -	
Anfagonistic action only on ER of Breast -> Useful for t/t ER tve Breast C4.	
Useful for Ift ER the Breast Ca.	
	-6
Agonistic action on blood vessel	
·	•
<u> </u>	<b>8</b>
<del></del>	<u> </u>
ADR - Hot flushes Endometrial cancer	
Endometrial cancer	
DVT	<b>8</b>

ð	Page No. 197  Date: / /
	Raloxitene:
	Raloxifere:  Antagonistic acliou on Breast -> So use in Breast Cs.  "" " Uterus
0	"," " " Uferus
_Ô	
_	YE - Hushing DVT
-	DVT
•	Not cause Endowelreal CA.
<b>*</b>	
Õ	Aromalase Inhibitors:
	Amino glutelhimide (chemical adrenalectomy)
_	Formestane
	Exempstane
***	Vorozole
<b>6</b>	Fadrozole
_ <b>*</b>	Letrozole
	Anastrazole.
<b>3</b>	Extra information: SERMs for DUB: Ormelonitene
	SERMI for DUB: Ormeloxitene
<u> </u>	(Centchroum)
<del>-</del>	-Use as Contraceptive pill.
	Iwice in who c gap of four day - Jirst 3 month. later once in a week.
	3 month. later once en a week.
	SERMs for Dyspareunia - Ospenitene.
-0-	
1-5-	SERMs for induction of Ovulation - Clamishene
7	
1 -	
-6	
8	

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Date : / /	-0
SPRM:	-
Ulipristal - Emergency Contraceptive (Cantake 5 days after	<u> </u>
Asopranic	ay 6
Jérapriotone - Useful in Uterine fibroid Endouvelriosis	
Endouletriosis	À.
Prostalic Cancer:	
Becoz of exclus androgenic aclion.	•
	Ť
Hypothalauus	
(GnRH) - Pulsatile release	-
(60-120 min)	
Pituitary	*
(Gonadotropine - LH/PSH)	6
1,⊕	a is
Testis	-
PSH -> Spermatogenesis - Seminiferous cell.	48
LH → Leydig cell - Testosferone production	<b>A</b>
overproduction cause Prostatic C4.	<b>66</b>
Drugs V Jestosterone production:	
Drugs V Jestosferone production:  (A) GRH agonist (In continuous manner):	1
Leuprolide	-
Goserelin	0
Busorelin	<u> </u>
Naterelin	
Nagerelin Desorelin	
Histrelin	•
Histrelin Tritprelin	•
7	

		<u>.</u>
Ö		Page No. ¹⁹⁹ Date: / /
•	2 211	2010
•	GnRH antagonist: Genirelix	20 20 20 20 20 20 20 20 20 20 20 20 20 2
<u> </u>	Genirelia	
<b>3</b>	Celrorelix	
	Ab arelix	`
<b></b>	Degarelix	
	Comparision:	
	Agonist	No initial flare up.  No histamine release
9	Initial flare up	No initial flare up.
	Comparision:  Agonist  Initial flare up  Histamine release	No histamine release
5		
<b>5</b>	√ Testosferone cause:	
3	Hot flush	(Reduce wascle wass)
	Loss of libera	<i>'o</i>
<b>)</b>	Impotence	
	Sarcopenia	(Reduce muscle mass)
	Asteologica	ii.
	H/+ >	Supplement Vit D
	- J	Rin blos bhenates.
<u> </u>		Bisphosphonates. Denosumab.
		D Chillians
8	Drugs having histo	ruine releasing property
<b>6</b>	d- Tubacure	rrine
8	Morphine	
2	Dexferioxam	ñe
	Amphotericin	
0		
9	Vancourasi 1	(Red Man Syndrome)
<u> </u>	V towningeth (	
•		
<b>Š</b>		
8		

Anti androgen/  Jlufamide Nilufamide Bicalufamide Enzalufamide Cuproferone Abusaferone  Sedalwe + Anti emelie Sfe - Phocomelia Gf - Pregnancy. Calegory X  - It has Anti cancer + Immime modulation property. Jadication: Multiple myelonia ENL Apthous ulcer SLE.  Jouwer ( R ( Therapeulie we & Teratogenicity) S ( Sedation)  M/c Sfe - Constipation Severe pripheral sensory neuropathy.		Page No. 200
Flufamide  Nilufamide  Bicalufamide  Enzalufamide  Cyproferone  Abviaferone  Sedalvie + Aonti emelia  Sfe - Phocomelia  CfI - Pregnancy.  Calegory X:  - It has Anti cancer + Immune modulation property  Jadicalion: Multiple myeloma  ENL  Apthous ulcer  SLE  Joomer ( R ( Therapeulia use & Teratogenicity)  S ( Sedation)		Date: / /
Flufamide  Nilufamide  Bicalufamide  Enzalufamide  Cyproferone  Abviaferone  Sedalvie + Aonti emelia  Sfe - Phocomelia  CfI - Pregnancy.  Calegory X:  - It has Anti cancer + Immune modulation property  Jadicalion: Multiple myeloma  ENL  Apthous ulcer  SLE  Joomer ( R ( Therapeulia use & Teratogenicity)  S ( Sedation)	Anti androgen !	
Nilufamide  Bicalufamide  Enzalufamide  Cyproferone  Abwaferone  Malidomide:  Sedalive + Anti emelic  Sfe - Phocomelia  Cf1 - Pregnancy.  Calegory X:  - It has Anti cancer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous eller  SLE  Isomer (R (Therapeutic use & Teratogenicity)  S (Sedation)		
Nilufamide  Bicalufamide  Enzalufamide  Cyproferone  Abwaferone  Malidomide:  Sedalive + Anti emelic  Sfe - Phocomelia  Cf1 - Pregnancy.  Calegory X:  - It has Anti cancer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous eller  SLE  Isomer (R (Therapeutic use & Teratogenicity)  S (Sedation)	Hufamide	
Enzalutamide  Cyproterone  Acviaterone  Sedalive + Anti emelic  Ste - Phocomelia  CII - Pregnancy  Calegory X  - It has Anti cancer + Immune modulation property  Jadication: Multiple myelonia  ENL  Apthous ulcer  SLE  Jouner (R (Therapeulic use & Teratogenicity)  S (Sedation)	•	
Enzalutamide  Cyproterone  Acviaterone  Sedalive + Anti emelic  Ste - Phocomelia  CII - Pregnancy  Calegory X  - It has Anti cancer + Immune modulation property  Jadication: Multiple myelonia  ENL  Apthous ulcer  SLE  Jouner (R (Therapeulic use & Teratogenicity)  S (Sedation)	Bicalufamide	
Abiraferone.  Jhalidomide:  Sedalive + Amti emelic  Sfe - Phocomelia  Cfi - Pregnancy.  Calegory X:  - 9+ has Amti cancer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous edler  SLE.  Isomer (R (Therapeulic use & Teratogenicity)  S (Sedation)		
Abiraferone.  Jhalidomide:  Sedalive + Amti emelic  Sfe - Phocomelia  Cfi - Pregnancy.  Calegory X:  - 9+ has Amti cancer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous edler  SLE.  Isomer (R (Therapeulic use & Teratogenicity)  S (Sedation)	Cyproterone	
Sedalive + Anti emelic  Sedalive + Anti emelic  Sfe - Phocomelia  GI - Pregnancy.  Calegory X:  - 9+ has Anti cancer + Immune modulation property  Jadication: Multiple myelonia  ENL  Apthous -ulcer  SLE.  Journey (R (Therapeulic use & Teratogenicity)  S (Sedation)		
Sedalive + Anti emelic  Sfe - Phocomelia  GI - Pregnancy.  Calegory X:  - 9t has Anti cancer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous eder  Sce  Sce  Isomer (R (Therapeulic we & Teratogenicity)  S (Sedation)		
Ste - Phocomelia  'Ct - Pregnancy.  Calegory X:  - It has Anticancer + Inmune modulation property  Indication: Multiple myeloma  ENL  Apthous ulcer  SLE  Isomer (R (Therapeutic use & Teratogenicity)  S (Sedation)	Ihalidomide:	
Calegory X:  - 9+ has Anticancer + Immune modulation property  Jadication: Multiple myeloma  ENL  Apthous elect  SLE  Isomer (R (Therapeutic use & Teratogenicity)  S (Sedation)	Segalive + Anti emelic	
Calegory X:  - 9+ has Anticancer + Immune modulation property  Jadication: Multiple myeloma  ENL  Apthous elect  SLE  Isomer (R (Therapeutic use & Teratogenicity)  S (Sedation)	SJE - Phocomelia	•
- 9+ has Anticaucer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous ulcer  SLE  Isomer (R (Therapeulic use & Teratogenicity)  S (Sedation)	C/I - Pregnancy.	4
- 9+ has Anticaucer + Immune modulation property  Indication: Multiple myeloma  ENL  Apthous ulcer  SLE  Isomer (R (Therapeulic use & Teratogenicity)  S (Sedation)	Calegory X:	
Apthous ulcer  SLE.  SLE.  Schools use & Peratogenicity)  S (Sedation)		
Apthous ulcer  SLE.  SLE.  Schools use & Peratogenicity)  S (Sedation)	- 9+ has Anticancer + Inmi	une modulation property
Apthous ulcer  SLE.  SLE.  Schools use & Peratogenicity)  S (Sedation)	Jadicalion: Multiple myels	ouia / / /
SLE.  Domer (R (Therapeulit use & Teratogenicity)  S (Sedation)	ENL	
SLE.  Domer (R (Therapeulit use & Teratogenicity)  S (Sedation)	Apthous eller	L .
	Isomer (R ( Therapeulit u	se & Peratogenicity)
	S (Segation)	0 0
M/c S/E - Constipation  Severe peripheral sensory neuropathy.		
Severe peripheral sensory neuropathy.	M/c S/E - Constipation	1
	Severe peripheral s	sensory neuropathy.
À		

0			Page No. 201
	Drug	Antidala	
•	Drug Melho frexale	Anhdote Folinic ació	
8	Donorubicia	Derrazona	
<b>(a)</b>	Cyclophosphamide	Mesna	<i>x</i>
	Conplation		ino.
	Casplatia Alas Palefermin	Ami fost Mucoci	tis.
	$\mathcal{O}$		
Ö	Drugs useful for Hf new	ulro penia:	
	Colony stimulating	Factor (CSF)	)-
	<b>~</b>		
<b>*</b>	7G-CSF Filgraslim Pagfilgrastim Lonograstim	GM-CSI	5
	Filgraslim	Sargra	uostin uostin
<u> </u>	Pagfilgrastin	Morgra	ranostrin.
-a-	Conograstiu	<i>U</i>	
	· · · · · · · · · · · · · · · · · · ·	·	
	Drug useful for Amemia	:	·
6	Epoiefin (Recom	benant - Ery	thropovetin)
<u> </u>	Darbopoiefen		
6	Peginesatide (Ery,	thropoietin Ke	ceptor Stirmlant)
6	0		
-	Drug useful for throm	bocytopenia	<u>:</u>
	- Oprelvekin (IL-11) - Thrombopocelin	•	
0	P : 1100 (20/81)	1 - 1- 1-	
0	drug - Eltrombodaa for I	$rp \rightarrow by pla$	sma exchange
0	drug L Eltrombopag -		
	-> 0.100		
-			
5			

	Page No.
	Date : / /
Anti-emelic useful for Anti-cancer Already done.	t/t:
Already done.	
<i>V</i>	Ů
Immuno suppressant: Cyclosporin Jacrolinus (FK506)	
Cyclosporin	
Jacrolinus (FK506)	
Sirolinue	Û
Everolinue	Š.
· · · · · · · · · · · · · · · · · · ·	
Druge whibiling synthesis of 11-2:	
Drugs inhibility synthesis of 11-2:  Cyclosporin > Ca  Sacrolinus (FK506)	rlcineurin
Jacroliums (FK506)	inhibitor.
V	5
Both Cause Nephrotoxicity	Ţ,
Bolh Cause Nephrotoxicity  Jacroliums > Cyclosporin	
Jacrolinus - Macrolide comp	1.
	õ
Common problem - Nephrotoxici,	ty (Dose lémiting).
Neurotoxicitu	
Neurofoxicity Hepatofoxicity	
pm pm	<b>6</b>
Diarrhea	<b>8</b>
Alopecia	26
1,20	
Specific Ste of Contraction - Huser troble	y of Gum
Specific SPE of Cyclosporin - Hypertrophy Hirsufe	Trus.
1711 →	TH Nekidibine.
Hichon lea	T/t: Nefîdîpine.
-1197040	,46
	<b>3</b>

*	Page No. 203
	Date: / /
	Hypokalemia <u>Consed by</u> Cisplalin Amphotericin B
•	Auphotericia B
	rquiprus cacus io
â	m-Tor blockers:
*	
dia.	Everolinus Hyperlipidemia
	Sirolinus 7 - SfE - Thrombocytopenia Everolinus - Hyperlipidennia (High TGL)
Ô	
9	Azalhio prine:
<u> </u>	Puring anti metabolile
	Immunosuppressant action (CMI) No anti cancer action
	No anti cancer aclion.
•	
<b>3</b>	USE - RA
Ò	IBD (U. colitis) Organ transplantation.
	Organ transplantation.
	GE - Myelosuppression
<b>6</b>	•
<b>8</b>	Azathioprine converted > 6-Mercaptopurine.
*	The stage of the s
	· · · · · · · · · · · · · · · · · · ·
	Metabolism by Xanthine Oxidase.
8	· ·
*	Immenostinulants:
2	Cytokines
*	Aldesleukin (Recombinant 162) (for RCC & MM)
	Interferon r (Chronic granulomatous de).
•	Interferon r. (Chronic granulomatous ds).  BCG vaccine (Intra vesicle - Univery Gladder Ca)
•	
â	Valrusicin, Mitomycin
<u>~</u>	Valrubicin, Mitomycin Laryngotracheal Stenosis
CD.	v -

Date: / /
Levamisole (Anti helminthic property)  -> Immuno stimulant.
IL-modulators:
Analogues of IL-1 receptor antagonist: Anakin ra (USE-RA)
11-324 antagonist: Pitrakuira
(USE-BA)
Analogue of 12-2: Aldeslukin
(USE - RCC, Malignant Mejanona)
1L-2 receptor blocker: Basiliximas
Daclizumab.
IL2 + Diphtheria toxin: Denilukin diftiton
· · · · · · · · · · · · · · · · · · ·
USE: Cutaneous Teell lymphoma.
· / /
Histone deacytalase whibitor
Historie deacytalase unhibitor  Vorunostat
Romidepsin.
1L-5 blocker: Resilizumab (Severe essinophilia, BA)
Mepolizumab
Chrug strauss syndrome
IL-6 blocker - Tocilizumas
Ly USE - RA
IL-1,6 antagonist - Steroeds
IL-1,6 antagonist - Steroeds  Analogue for IL-11 - Operlvikin
' WSE - Thrompocytopenia.
IL-17 Blocker - Inekizumab , Use: Plague Provincis.
Brodalumas
·

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Date:	1	1	

	Date: / /
	IL 12223 - Ustekinumab
	Ly USE - Pronasis.
<b>6</b> #	Apafant, Lexipafant (PAF Blocker) - For Acule Pancreatilis
- <b>6</b>	Ivication - For cyclic tibrosis.
ő	Imi qui mod - For chondy tomala accuminata (HPV)
)	Alefacept - For Roxiasis
	Resignimod - For HSV
<b>6</b>	Ly-Dotatate - For Midgut endocrine lumor.
· 🔊 - ·	Anagrelide - For Essential Thrombocytosis
	Belinumab - For SLE
	Defibrotide - For Budd Chiari Syndrome.
<b>*</b>	Hydroxy urea - For Sickle cell anemia.
•	Praparilo - For ovarian Cancer
- Ö	· Acting by Poly ADP ribose polymerase
, <del>************************************</del>	(PARP) enhibitor.
	Palbocilib, Amebaciclib, Ribociclib - For Breast Cancer
N . 22-4	CDK 4/6 (cyclin dependent kinase) inhibit
	Edaravone - (Antioxidant) for ALS.
<b>*</b>	AA 11 0 = water of - Out it for some mour bhos bhale
<b>*************************************</b>	Mycophenolalé motelilale - Inhibit Ionosine monophosphale (Immunosuppressant) de hydrogenase
Ö	Pento station - Inhibit Adenosine deaminase.
	Voninostat - Inhibit Histone deacetylase.
	Leftunomide - Inhibit di hydro orotate dehydrogenas
3	
-0-	Cuclospania - Manhantagity
0	Cyclosporine - Nephrotoxicity  Letunomide - Hepatotoxicity
•	Sirolimus - Bone marrow suppression
<b>6</b>	
	Azalhioprine - Hypertriglyceridenta Muromanab - Cytokine release Syndrome.
	Cyforate 1
) 🍣	

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	Date: / /
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	- Control of the cont
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	<b>_</b>
	-

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Ö	Page No. 207  Date: / /
6	
	ANTIMICROBIAL DRUGS
	Antibiolic acling by inhibiting cell wall synthesis:
<u> </u>	· · · · · · · · · · · · · · · · · · ·
<u> </u>	Nacelyl muranic acid
-	N-acetyl muranuc
•	N acetyl glucosamire — Acid peptidase.
	Chap 1:
6	# The First enzyme initialing cell wall synthesis  — Alanine ligase/Racemase
<b>2</b>	- Alanine ligase/Racemase
	10
	Cycloseruie
•	4 2nd line drug of TB
8	- Bacleriostatic
	SJE - Psychosis.
<del>- 6</del>	Step 2:
0	Enolpyruvale transferage & Tos founçain 4 For UTL
<b>6</b>	4 For UTL
	Cause severe déarhoea
	So not en use.
<b>O</b>	Clab?
-	Darkon Harulation of Bactobrenol & Bacilracin
•	Step3: Dephosphorylation of Bactoprenol ← Baciliacin
<b>6</b>	polypeptide group of Amtibiotic
	USE: Wound/ Ulcer healing
	USE: Woundfulcer healing (Given topically)
( Ø	Clabia
•	Elongation of peptide chain  4 \(\bar{c}\) help of Transgleycosylase \(\begin{array}{c}\) Vancomycin  **N Alter \(\begin{array}{c}\) VRSA
	Go held Transpleposylase Vanconycin
-	To the state of th
	y Alter → VRSA
<b>5</b>	U

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Step 5:	•
Cross linking of elongaled peptide chain	•
$oldsymbol{v}$	6
by Transpeptidale ← Beta Laclain  (Penicillin binding prolein) (Penicillin)	0
(Penicillus binding prolein) (Penicillus)	-
V	
If allered -> MRSA	
If allered -> MRSA (Resistance)	1
inhibiting	
Anlibiolits acling by protein synthesis:	- Alle
0 0 1	4.5
Aminoglycosides & Telracycline binding & 30s Ribosome	0
Aminoglycosides & Telracycline binding & 30s Ribosome & inhibit protein synthesis.	•
	ð
Drug acting on 50 s Ribosome & whibit protein	ň
synthesis:  Resistance due to	-
Chlorambhenical Resistance due to Acetyl franceiase	-
Chloramphenical Resistance due to Acetyl franceise  Linezolid	9
M=Macrolides	0
L)= Lincosamides (Clindamycin)	**
S = Streptogramme.	
MIS resistance -> Melhilation of 50s ribosomes.	-0-
MLS resistance -> Melhylation of 50s ribosomes.	Ö
Tel Facucline, registance - Development of Efflux bymb	
Jetracycline resistance - Development of Efflux pump	6
Tigecycline - Resistance to efflux.	48
of of the second	FF
Due lo enzymalic degradation -> Aminoglycosides	
1 Resistance	5
Do not develop / Amikacia	<b>6</b>
Do not develop j Amikacin resistance. Netilmicin	

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# All antibiolits acting by whiteiting protein synthesis	_
are baclerio static exception - Aurioglycoside	_
Streptogramine.	
/ (	
Antibiofecs	
Penicillin:	
Commercial source - Penicillum chrysogenum.	
Acid Resistant: Orally.	
V = Penicillin V	_
) = Oxacillin	
= Dicloracillin	_
= Cloxacillin	
= Ampicillin/ Amoxicillin	
Peniciliase resistant:	
C 2 Cloxacillin	
0 = Oxacillia (hepatitis)	
N = Naficillin (Neutropenia)	
	_

## Penicilinase resistant:

R = Cloxacillin

= Dicloracillin

00

1

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(6)

0

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6

8

= Melhicillin (Interstitial nephritis)

## B-Cactamase inhibitor:

Clavulanic Acid + Amozycillin Sulbaclain + Ampicillin Pozabaclain + Piperacillin

# FDC (Fixed drug combination):

Same volume of distribution

or same half life

	Page No.
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Extended spectrum Penicilliers:	
Aminopenicilliers - En/eroaclive	
Aminopenicillius → En/eroaclive Becampicillin	<u> </u>
Ampicillin -> Causing dirs	hea due to encomplete
Ampicillin → Causing dirs Amonicillin	assorption.
Carboxy penicillins (Enteroaclive	+ pseudomonas) 🏺
Carboxy penicillin≤ (Enteroaclive  Carbenicillin → Cause  Ji carcillin	bleeding due to disturbing
. Ti carcillin	U Platelet.
Urei'dopenicillins	
(Enteroaclive + pseudomonas-	+Klebsiella)
Azlocillin	*
Piperacillin	
Meglocillin	9.
0	
	•
# Aurinopenicillins are GI in Intec	lious mononucleoses o
# Auninopenicillins are GI in Intec Scoz of risk of severe skin ra	zh·
$\bigcirc 0$	
# 2nd line Anti TB GI in HIV pt	E 7B: Thiacetazone
# 2nd line Anti TB GI en HIV pt	1
may cause	Steven Johnson Syndrom
	Steven Johnson Syndrome
Skin	Rash.
# OCP + Ampicillin -> Risk of OCP	tailure
By intertaring ente	rohepatic circulation.
0 0	
	2-

D

	Page No. 211
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	S/E of Penicillin in syphilis pt.
	<b></b>
	Jaresch herxheimer Reach.
	/
<u> </u>	Secondary Syphilis
	No freatment
â	Ouly symptomalie - Aspirin & Sedation.
	<b>V O /</b>
	Aly pical bela lactain antibiofics:
<u> </u>	Alypical belà laclam antibiofics:  Carbapenams:  • Imipenam
0	• Ympenam
	- Brodest spectrum
<u> </u>	- Shortest acling
-5	4 Rapidly undergo inactivation by
, 0	Dehydropeptidase 1 enzyme.
	Add Cilastatin
	S/E - Seizures
	7- 0
	· Meropenaur
<u> </u>	· Meropenau · Ertapenau
	Monobactacus:
<b>5</b>	· Aztreonau
<b>6</b>	→ No cross reactivity.
<b>Ø</b>	4> Useful for Aerobic gin +ve infection.
0	Similar to aumogruposides.
<b>a</b>	
28	# For Anaerobic infection - Metronidazole
<b>◎</b>	Clindanycin SJE-Pseudomembranous
	S/ž-Pseudomembranous
	Colêtis.

	Page No. 212	5
Cephalosporius	Date : / /	·
Fourth generalion drugs:		
Cefépuire		
Cefepuire Cefpirouse Cefclidir		5
Cefclidin		Ď
Fifth generalion drugs:		
	4	4
Ceffo biprole Ceftraroline		
USE - MRSA		
Community Acquired	Precenia.	
	•	
Glycopeptide Antibiotics: Vancourge	a	
		•
the of Gm +ve in	declion.	
		· -
Oral Vancouyein - Useful for Ps	endomembranom	
i.v. Vancouyein - Doc for MR	RSA.	
	· · ·	9
Caused by	Clostridium difficle.	_
V		
Caused by 3rd gen.	Cephalocporin.	
Newer drug for PMC -		and the second
ADR of Vancours ? P. 1.4.	Fi'daxomicia	
ADR of Vancomycin: Red Man Syn	growe (M/c)	
Officially		Total Design
Nephrotoxia	-ry	
	<b>8</b>	
	9	
	*	

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-	Other Glucopephide antibiplies:
r	Other Glycopephide antibiolius:  Tiecoplanen
	Drilavancin
	Telavancin - Longest acling (6-10 days)
	Drugs used for T/t MRSA/VRSA:
	Drugs used for T/t MRSA/VRSA:  VRSA -> Linezolid -
	SE - Thrombocytopenia (M/c)
	YE - Thrombocytopenia (M/c) Oplic & peripheral neuropathy.
	Also used for MDR 7B.
	Also used for MDR 7B.  MAO inhibitory property.
	VRSA -> Streptogramme
	VRSA > Streptogramine  Quinupristine: Dalfoprisline = 70:30.  SfE - Infusion reach  Arthralgia
	S/E - Infusion reach
	Arthralgia
	VRSA -> Dapto unycin La causing unyopathy.
	Les causing myopathy.
-	VRSA -> Tigecycline
	gwen iv tetracycline
	VRSA -> Tigecycline  gwen i v tetracycline  Resistant to efflyn  Excretion - Bite  Safe in Renal failure
	Excretion - Bile
	Safe en Renal fallere.
	U U
	•
	·
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Sulfonamides:	
Sultasalazino.	0
Sulfonamides:  Sulfasalazine  9n 917 split in 2 componer	rt 🍵
Sulta buridire 5 amino Salicyliè	arid.
Sulfa pyridire 5 aurino Salicyliè	
V	
Vieful for RA. Vieful for ulcer	newe coneris
ADR — Allergy Oligospermia (In male) —	> Intertility.
	0
Topical - Sulfacetamide - For eye drop.  Silver sulfadiazine - has anti-f.  Meganide -  CA inhibitory action	<b>(b</b>
Silver sulfadiazine 7 - has anti-1	rseudomonal action
Méganide -	•
G CA inhibitory action	6
Metabolio acidoxos.	2
useful for Fringal Kerato unycosis.	9
# Sulfadoxuire + Pysiuselhamine ->	For T/t of Malaria.
# Joxoplasmosis:  For Yt: Sulfadiazine + Pyri  + Jolinic	
for tft: Sulfadiazine + Pyri	meltramine
+ Folinic	acid.
Safest drug For t/t of Toxoplasmosis in pregna	ency 5
Satest drug For t/t of Toxoplasmosis in pregna - Spiramycin (Macro	lide)
Cotri maxazole: Sulfamelhaxazole	e (400 mg)
Colrimaxazole: Sulfamelhaxazole + Trimethat	rime (80 mg).
Commande DS. Sufamethaxazole	(800 mg)
DOC: Pheumocystis carinic pheumonia.	un (160 mg)
Poc. Phelimocystes carenic phelimonea.	

	Page No. ²¹⁵ Date: / /
	Aming lyeo sides.
•	Aminoglycosides.  For tft of TB → Streptomycin (1st line drug)
	Konguyain. 7
*	Capreomycin And line drug.  Amikacin
	Amikacia -
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	- All are ionised molecule sonotabsorbed
٥	via orally.
	Streptouyein - DOC for Plague (mass prophylaxis)
	Donycyclin
	Also useful in - TB
<b>6</b>	Also useful in – TB Tularemia
0	
)	Aminoglycosede useful for Pseudomonas:
	7 = Tobranyein
	A = Auckaein
0	. G = Gentamycin
<b>6</b>	<i>V</i>
	Among Cephalosporin
	- Ceffazideine
	Cekopera zone.
	$\mathcal{U}'$
, <b>*</b>	For severe Pseudomonas intection - 70°C is Combination of Cephalosporin & Aminoglycosides. eg: Ceftazidine + Tor A or G.
<b>**</b>	combination of Cephalosporin & Aminoglycosides.
	ea: Cettazidine + Tor A or G.
	. 1 30 3
•	Last option for severe resistance case of Pseudomonas
0	· • • • • • • • • • • • • • • • • • • •
	Polymy xin B.
<b>S</b>	V V

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Paramonycin -	
Pral - Amoebiasis	
Oral - Amoebiasis iv - Kala agar	
	à
- Menuwein:	26
generally parentrally	
Neouycin:  generally parentrally  Oral - Gut sterilization  Hepatic encephalopath	
Hepatic encephalopath	y.
	y.
# Aminoglycoside follow conch depend	
# Auunoglycoside follow conch depend so given OD dose.	
	Č
# Beta Laclain follow line depende	nt Killing
# Beta Laclain follow lune depende So gwen TDS/QID.	
	2
Post autibiotic effect of Aminogly	uxide:
Post autibiotic effect of Aminogly Even though the drug	g level is .
lower than the MAC value ste	el produce action.
# Common SE of Aminoglycoside:	ň
Nephrotoxicity	
Nephrotoxicity Ototoxicity	•
Neuromuscular block	.(Neouycur)
	<b>*</b>
Among the Aminoglycoside - Gente	amycein 7 Highly
Tobre	ruycin Nophrotoxic
Neo	amycin 7 Highly amycin Nophrotoxic
Least Nephrofoxic	- Streptomycin
/	•
	_

<b>A</b>	Page No. 217
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-	# Maxin deatness caused by - Kanamycen
	# Maxin deafness caused by - Kanamycen  Amikacin Maxin.
	Neouyein
<u> </u>	<b>V</b>
	Deafness 1st high frequency sound -> Lastly low frequency sound.
-	frequency sound.
<b>(2)</b>	First damage Base of hair cell -> last cy apex of hair cell.
<b>Ö</b>	
0	Vestibular damage – Streptomyen
Ď	Gentaunyein.
	Equal - Tobramycia
•	Least - Netilimycin
•	Gentaunyein  Equal – Tobraunyein  Least – Netiliunyein
•	John Quinolones:
<b>*</b>	MOA: inhibits DNA Gyrase in Gram -ve -ve
*	MOA: làhibits DNA Gyrase un Gram +ve -ve chhibit Topoisomerase IV un Gram +ve
	<b>,</b>
	Route of Encrelion - Kidney.
Ö	4 So not given in Renal failure.
<u> </u>	
-	Excretion via liver - Preflonacin 7 Used in RF Trovaflonacin (Safe) Moniflonacin
	Trovaflonaein (Sate)
	Moxifloxacin -
**	
<b>5</b>	Céprofloxacin:
	Doc for Typhoid
	Currently 1st line choice
9	Céprofloxacin:  DOC for Typhoid  Currently 1st line choice  - Cet trianone (iv)  ( In children / Pregnancy)
0	( In child ren/ Pregnancy) or in Coprofloxacin Resistance
6	or in Coprofloxació Resistance
_6	

Page No. 218	0
Date: / /	
Drug interaction & theophylline:	-
Ciprofloxacion is unicrosonial eazyme inhibitor, when	
gwen & theophylline, theophyllin level 1 in	•
plasma which causes convulsion/ seizures.	<u> </u>
	_
Wiltidrawn Quinilones:	
Trovafloxación - liver toxicity.	
Grepafloxacin - QT prolongation	
Gatifloxacin - Unpredictable glucose profile.	
4 Only cystemic use was withdrawn	
Clinafloxacin - Photofoxic	
1	<b>©</b>
available Spartloxacia (longest action)	<u> </u>
quirilones Comifloxacin	
l'aurelones. Comifloxacin	
Macrolides	
Clari Hosa aucin:	•
Medul tor - MAC	
Useful for - MAC  4. pylori  100054.	26
1 Paguic	
Léprosy.	<b>—</b>
Λ-/ <i>U</i> · · · · · · · · · · · · · · · ·	Ğ
Azithro mycen:  Useful for – MAC	
Useful for - MAC	
Gonococci/Cyphilis/Chancroid Chlamydia Legionella Campylobactor jejuni	<b>D</b>
Chlanydia	<b>Q</b> _
Legionella	
Cămpylobactor jejuni	
V	
	<b>*</b>
	_0_

	Page No. ²¹⁹ Date: / /
	Common SIE of Michalides -
9	Common GE of Microlides —  — GI toxicity -> due to motilin
*	- Hearing impairment.
1	- Hepatitis
-	- Cholestalic gaundice caused by erythnomycin estolate
	- Cholestalic gaundice caused by erythnomycin established - Exception extension extension
*	
<b>8</b>	Drug interaction:
	- All uncrolèdes are uncrosonnal enzyme in hibitor
<u> </u>	Ery/hroungein - Maxim uncro somal enzyme inhibition so maxim drug intraction
0	
0	# Azithromycin - Least microsomal enzyme inhibition # Azithromycin may cause & T brolongalion.
0	# Azithromycen may cause QT prolongation.
<b>Ö</b>	# Engthromycui aggravates pyloric stenocis.
6	Total
	Tigecycline -
Ö	Gwen i.v.
6	
6	Useful for MRSA/VRSA Excreted by bile so safe in Kidney failure.
	Doguetching -
•	Donyckline –  Excreped via bile, safe in RF
Ö	
<b>a</b>	
	Demeclocycline –  Photofoxic
•	Cause DI
0	Useful for SIADH.
<b>(5)</b>	U U
-	

Page No.	Ő
Date: / /	
Minocycline:  Used for lepsocy.  L. R ifampicin  O'floxacin	•
Used for lepsocy.	
1 L. Rifampicen	
0 floxacin	
O'floxacin M'inocycline	
Sje – Vestibulo foxucity.	
0	
# All tetracycline having risk of causing clevation of	
# All tetracycline having risk of causing elevation of 107 called Pseudo tumour Cerebri.	
# Outdated tetracycline may eauxe Janconis Syndrom	٤٠,
# Telra cyclines are DOC for () Riketteial intection (2) Chlamydia intection (3) Lympho granuloma (1) Venerum.	•
2) Chlamydia intection	0
3) Lumpho granuloma (1	GV)
J J Venerum.	23
Potracucline used as Prophylaxis of : Cholera	•
Jetracycline used as Prophylaxis of: Cholera  Brucellosis	8
	Ŏ
Plague.	
Mr in browning - Polymont hebatic failure	
91 in pregnancy - Julminant hepatic failure	<u>_</u>
Baby & Bone & teeth problem	Ö
y teep prostent	
And Colod of 18 stine of Least carries of locates	<u> </u>
Most Safest autibiotics in pregnancy -> B-lactan	
<u> </u>	
Cephalosporin & Penicillin > Azithr	ouigein 🍎
	6
	2
	<u></u>

	Page No. 221
	Date: / /
	Antibiotic & Colour association:
•	Grey baby - Chlorauphenicol
	Yellow baby - Sulfonamide
<b>6</b>	Red man Syndrome - Vancomycin
	Discoloured teeth - Tetracyclines.
<b>a</b>	Coffee Coloured teeth - Nitrofurantoin
	Loss of Red/green perception - Ethambutol.
<u> </u>	Reddish black - Clofazi mine.
<b>D</b>	
<b>6</b>	
	Juberculosis
38	Anti-lu bercular drugs:
9	Iso mazid (INH):
<b>8</b>	- activated & the help of INH Agene
<b>-</b>	& cafalase peroxidase.
) <b>&amp;</b>	MOA: Inhibiting mycolic acid synthesis.
<i>*</i>	- Undergoes metabolism by acetylation.
	Make to the Arites (sole)
<u> </u>	SJE - Hepatotoni Lity (M/c)  Some to formalion of Acetyl hydrazure
<u> </u>	Navas hall is
Ô	1. Ill ele administrate on at 164Re
B	Neuropathy  Styt - Slow administration of VitB6  Probhytack cally - 10malday
25	Prophytockically - 10mg/day  Neurotoxicity - 100mg/day
	Neurofoxecity = 100 mg/city.
<u> </u>	Memory impairement
•	Shoulder hand syndrome
<b>(</b>	SLE
6	
	Cheese Reach.
1	

# Does n't require closage adjustment in pts & Renal disease  # Useful for Prophylanis of TB  # Manim CSF penetration.  Used for elevating mood.  Rifampicin:  - Activated & help of Repo B gene.  MOA: Inhibit DNA dependendent RAM RNA polymerase.  - Excretion via Bile & faces  Lo safe in RF.  Sfe - Non Serious:  Reddish erange calour (Uriae, Sweat & tears)  Staining of contact lenses.  Serious:  Hepatitis  Resp' syndrome  Hemotyris  Furpura.  # It is microsomal engyme inducer  pt & HIV Receiving antiviral drug, if we use  Rifampicin for TB, if the failure occurs.  Alternate drug -> Rifabutin -> Causeu Rsewoon  foundice:	Page No. 222 Date: / /	6
# Does 114 require dosage adjustment in pts & Renal disease  # Useful for Prophylanis of TB  # Manu CSF penetration:  Used for elevating mood.  Rifampicin:  - Activated & help of Repo B gene.  NOA: Inhibit BNA dependendent RHH RNA polymerase.  - Excretion via Bile & foces  So safe in RF.  SJE - Non serious:  Reddish enange colour (Urine, Sweat & team)  Staining of contact lenses.  Serious:  Hepatitis  Resp' syndrome  Hemolysis  Purpura.  # It is microsomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	# 9t is nucro enzyme inhibitor.	-0
# Useful for Prophylanis of TB  # Manua CSF penetration  Drowiazid > derivative of Isonizzid.  Used for elevating wood.  Rifampicin:  - Activated \(\bar{c}\) help of Repo B gene.  MOA: Inhibit DNA dependentent RAH RNA polymerase.  - Excretion via Bile & faces  So safe in RF.  SfE - Non Serious:  Reddish erange colour (Vrive, Sweat & fears)  Staining of contact lenses.  Serious:  Hepatitis  Resp' syndrome  Hemotysis  Purpura.  # It is microsomal engyme induces  pt \(\bar{c}\) HIV Receiving antiviral drug, if we use		rl D
Jeroniazid -> derivative of Isoniazid.  Used for elevating wood.  Rifampicin:  - Aclivated \(\bar{c}\) help of Repo B gene.  MOA: Inhibit DNA dependendent RATI RNA polymerase.  - Excretion via Bile & faces  Lo Safe in Rf.  Sfe - Non Serious:  Reddish orange colour (Urine, Sweat & tears)  Serious:  Hepaktis  Respr Syndrome  Hemotyris  Purpura.  # It is microsomal engyme viducer  pt \(\bar{c}\) HIV Receiving antiviral drug, if we use	# Useful for prophylaxis of TB	
Rifampicin:  - Aclivated & help of Repo B gene.  MOA: Inhibit BNA dependendent RAM RNA polymerase.  - Excretion via Bile & faces  Lo safe in Rf.  SfE - Non Serious:  Reddish orange colour (Vrine, Sweat & tears)  Staining of contact lenses.  Serious:  Hepatitis  Resp & syndrome  Hemotysis  Purpura.  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	# Manu CST penecration.	•
Rifampicin:  - Aclivated & help of Repo B gene.  MOA: Inhibit DNA dependendent RAM RNA polymerase.  - Excretion via Bile & faces  Lo safe in RF.  SfE - Non Serious:  Reddish orange colour (Urine, Sweat & tears)  Staining of contact lenses.  Serious:  Hepatitis  Resp & syndrome  Hemotysis  Purpura.  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	Iproviaced -> derivative of Isoniaced.	<u> </u>
MOA: Inhibit DNA dependentent R## RNA polymerase.  - Excretion via Bile & faces  So safe in RF.  SfE - Non Serious:  Reddish orange colour (Urine, Sweat & tears)  Staining of contact lenses.  Serious:  Hepatitis  Resp* Syndrome  Hemolysis  Purpura.  # It is micro somal engyme inducer  pt & HIV Receiving antiviral drug, if we use		
MOA: Inhibit DNA dependendent R## RNA polymerase.  - Excretion via Bile & faces  Lo safe in RF.  SfE - Non Serious:  Reddish orange colour (Uriñe, Sweat & teans)  Staining of contact lenses.  Serious:  Hepatitis  Resp* Syndrome  Hemolysis  Purpura.  # It is microsomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	Kifampicin: - Aclivated & hold of Pepo B some.	
- Excretion via Bile & faces  Lo Safe in RF.  SfE - Non Serious:  Reddish orange colour (Urine, Sweat & teans)  Staining of contact lenses.  Serious:  Hepatitis  Respt Syndrome  Hemolysis  Purpura.  # It is nucrosomal enzyme inducer  pt & HIV Receiving antiviral drug, if we use	<b>A</b>	•
SE - Non Serious:  Reddish orange colour (Urine, Sweat & teans)  Staining of contact lenses:  Serious:  Hepatitis  Respt syndrome  Hemolysis  Purpura:  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	MOA: Inhibit DNA dependendent RATE RNA polymerase.	<u> </u>
SE - Non Serious:  Reddish orange colour (Urine, Sweat & teans)  Staining of contact lenses:  Serious:  Hepatitis  Respt syndrome  Hemolysis  Purpura:  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	- Excretion vià Bile & faces	
Reddish orange colour (Urine, Sweat & teans)  Staining of contact lenses.  Serious:  Hepatitis  Respt syndrome  Hemolysis  Purpura.  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	So safe un RF.	6
Serious:  Serious:  Hepatitis  Respr syndrome  Hemotysis  Purpura:  # It is nucrosomal enzyme inducer  pt & HIV Receiving antiviral drug, if we use	70	Õ
Serious:  Hepatitis  Respresyndrome  Hemolysis  Purpura:  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	Reddish crange colour (Vrine, Sweat & tears) Staining of contact lenses.	
Hepatitis  Respr syndrome  Hemolysis  Purpura.  # It is nucrosomal enzyme inducer  pt c HIV Receiving antiviral drug, if we use		0
Respr syndrome  Hemolysis  Purpura.  # It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use		ð
# It is nucrosomal engyme inducer  pt & HIV Receiving antiviral drug, if we use	Respreyndrome	<b>8</b>
# It is nucrosomal enzyme unducer  pt & HIV Receiving antiviral drug, if we use	Purpura.	
pt c HIV Receiving antiviral aring, of we are	· · · · · · · · · · · · · · · · · · ·	0
Réfampicien for TB, 44 failure occurs.  Aller note drug -> Ritabentin -> Causes Pseudo	pt c HIV Receiving antiviral aring, of we are	Ö
	Réfampicin for TB, 4/4 failure occurs.  Aller 1010 drug -> Ritabentin -> Causes Pseudo	

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Page N	ο.	223	
Date:	1	1	

	Pyrazinamide:
0	- Act by inhibiting myeolic acid synthosis.
0	
_6	S/E - Hepatotoxicity
-5-	YE - Hepatotoxicity  Hyperurecimia
	# No drug enteraction 6002 Neither unciosomal
	# No drug enteraction booz Neither uncirosomal enzyme inducer or unhibitor.
<u> </u>	
	# Undergoes renal roule of excretion so need dosage
	# Undergoes renal roule of excretion so need closage adjustment in RF pt.
•	Ethambufol:
	Bacler vostatic
<u> </u>	MOA: Inhibiting Arabinogladan synthesis.
	SE → · optic neuritiz
	bloss of ability to differentiate red from green.
5	⇒ loss of ability to differentiate red from green.  ⇒ Supplement Ē Hydroxy cobalamine (Vit B12)
<u> </u>	• Hyper usecenna.
<u> </u>	Excrelient Undergo renal route of Excretion  - Need dose adjustment in RF pt.
	- Need dose Lajustment un RF pt.
<b>.</b> •	
Ö	Streptomycii:
<b>)</b> _ <b>0</b>	C/I in pregnancy 6002 cause permanent deafners.
<u> </u>	Streptomycin:  C/I in pregnancy bcoz cause permanent deafners.  in Children.
<b></b>	
<b>*</b>	
VI.	

TB in liver ds pt:  Avoid — Isoniagid, Rifampicin, Pyrizinamide  Safe — Streptomycin, Ethambutol.  TB in a Renal ds pt:  Avoid — Isoniagid E, P, S.  Safe — R > H  Newer drug for MDR-TB:  Bedaquitine:  Juhibit improbacterial ATP synthase.  Jord P Accorption.  Gross resistance & Clopagimine  May cause PT prolongation.  Is Cardiotonicity.  Delamanid Jahibit Mycolic acid synthesis.  Sutezolid — Derivative of Unegolist.  Anti TB drug causing:  D Hypothyroidism — Ethionamide (also used for leproy)  PAS  (3) Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Myithromycin,  Clarithromycin	Page No. 224  Date: / /	
Safe - Streptomycin, Ethambulol.  TB in a Renal ds pt:  Avoid - Leve E, P, S  Safe - R> H  Newer drug for MDR-TB:  Bedaquilline:  Juhilbit improbacterial ATP synthase  Good 1 Accorption:  Good resistance & clopazimine  May cause PT prolongation:  La Cardiotoxicity.  Delamanid - Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Uniezolot.  Anti TB drug causing:  O Hypothyroidisin - Ethionauide (also used for leproy)  PAG  (3) Psychosis - INH, cycloservine.  Antibiotic useful in MAC = Apithromycin,  Clarithromycin		_
Safe - Streptomycin, Ethambulol.  TB in a Renal ds pt:  Avoid - Leve E, P, S  Safe - R> H  Newer drug for MDR-TB:  Bedaquilline:  Juhilbit improbacterial ATP synthase  Good 1 Accorption:  Good resistance & clopazimine  May cause PT prolongation:  La Cardiotoxicity.  Delamanid - Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Uniezolot.  Anti TB drug causing:  O Hypothyroidisin - Ethionauide (also used for leproy)  PAG  (3) Psychosis - INH, cycloservine.  Antibiotic useful in MAC = Apithromycin,  Clarithromycin	upicin, Pynizinamide	
Safe - R>H  Newer drug for MDR-TB:  Bedaquiline:  Juhibit unycobaclerial ATP synthase  Jood 1 Absorption  Gross resistance & clopazinine  May cause PT prolongation:  La Cardiofonicity:  Delamanid Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Unesolid.  Anti TB drug causing:  D Hypothyroidisin - Ethionamide (also used for leprosy)  PAS  (3) Psychosis - INH, cycloserine.  Antibiotic useful in NAC = Azithromycin,  Clarithromycin		
Safe - R>H  Newer drug for MDR-TB:  Bedaquiline:  Juhibit unycobaclerial ATP synthase  Jood 1 Absorption  Gross resistance & clopazinine  May cause PT prolongation:  La Cardiofonicity:  Delamanid Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Unesolid.  Anti TB drug causing:  D Hypothyroidisin - Ethionamide (also used for leprosy)  PAS  (3) Psychosis - INH, cycloserine.  Antibiotic useful in NAC = Azithromycin,  Clarithromycin		-4
Newer drug for MDR-TB:  Bedaquiline:  Juhilbit mycobaclerial ATP synthase.  Jood 1 Absorption.  Gross resistance & clopazimine  May cause 97 prolongation.  Us Cardiotonicity.  Delamanid — Inhibit Mycolic acid synthesis.  Supezolid — Derivative of Uniczolid.  Anti TB drug causing:  D Hypothynoidisin — Ethionauside (also used for leproy)  PAS  (3) Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		-
Newer drug for MDR-TB:  Bedaquiline:  Juhilbit mycobaclerial ATP synthase.  Jood 1 Absorption.  Gross resistance & clopazimine  May cause 97 prolongation.  Us Cardiotonicity.  Delamanid — Inhibit Mycolic acid synthesis.  Supezolid — Derivative of Uniczolid.  Anti TB drug causing:  D Hypothynoidisin — Ethionauside (also used for leproy)  PAS  (3) Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		
Bedaquiline:  Juhibit inycobaclerial ATP synthase  Jood A Accorption  Gross resistance & Clofazionine  May cause & 7 prolongation  Lo Cardiofonicity  Delamanid  Preformanid - Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Uniezolat  Anti TB drug causing:  D Hypothy noidisin - Ethionaunide (also used for leproy)  PAS  (2) Psychosis - INH, cycloserine  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		
Jord A Accorption  Gross resistance & Clofaziunine  May cause P7 prolongation:  La Cardiotonicity:  Delamanid Junibit Mycolic acid synthesis.  Sutezolid - Derivative of Uniezolid:  Anti TB drug causing:  D Hypothyroidism - Ethionamide (also used for leprosy)  PAL  (3) Psychosis - INH, cycloserine:  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		
Grox resistance & clofazionine  May cause P7 prolongation:  La Cardiofonicity:  Delamanid   Inhibit Mycolic acid synthesis.  Sufezolid   Derivative of Unezolid:  Anti TB drug causing:  D Hypothyroidesin - Ethionaunide (also used for leproy)  PAS  (3) Psychosis - INH, cycloserine:  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	orial ATP Sunthase:	4
Gross resistance & Clofaziunine  May cause P7 prolongation:  Le Cardiofonicity.  Delamanid — Inhibit Mycolic acid synthesis.  Sufezolid — Derivative of Unesoled.  Anti TB drug causing:  D Hypothy roidisin — Ethionaunide (also used for leprosy)  PAS  (2) Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		ě
May cause Q7 prolongation.  Les Cardiofonicity.  Delamanid — Inhibit Mycolic acid synthesis.  Sufezolid — Derivative of Uniezolit.  Anti TB drug causing:  D Hypothyroidsin — Ethionamide (also used for leprosy)  PAS  D Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	E clofazione	(
Delamanid Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Uniezoled.  Anti TB drug causing:  D Hypothy roidesin - Ethionamide (also used for leprosy)  PAS  D Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	olongation.	
Preformanid - Inhibit Mycolic acid synthesis.  Sufezolid - Derivative of Unezoled.  Anti TB drug Causing:  D Hypothyroidisin - Ethionamide (also used for leprosy)  PAS  D Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	Cardiofonicity.	_
Sufezolid - Derivative of Uniezolot.  Anti TB drug Causing:  D Hypothyroidesin - Ethionaucide (also used for leprosy)  PAL  D Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	Muselic acid au Kanin	
Anti TB drug causing:  ① Hypothyroidisin — Ethionaunide (also used for leprosy)  PAS ② Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	Mycouc accordiness.	-7
Anti TB drug causing:  ① Hypothyroidisin — Ethionaunide (also used for leprosy)  PAS ② Psychosis — INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	e of linezolet.	<u></u>
D Hypothyroidesin - Ethionaulide (also used for leprosy)  PAS  (2) Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		_
D Hypothyroidesin - Ethionaulide (also used for leprosy)  PAS  (2) Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		
2) Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin		1
2) Psychosis - INH, cycloserine.  Antibiotic useful in MAC = Azithromycin,  Clarithromycin	ionauvide (also used for leprosy	10
Antibiotic useful in MAC = Azithromycin, Clarithromycin	95	
Antibiotic useful in MAC = Azithromycin, Clarithromycin	rine.	
Cartinomycu		-
Cartinomycu	Azithromycin,	
	Caregnionyca	Ĩ
REC Reguinen (R=Rifabulin, E=Ethambutol, C=Clarithromycin)	, E = Ethambufol, c = Clarithromyein	) [

(3) Cross BBB — INH, Pyrizmanide, Rifampicine, Cycloseru  (4) Uveitiz — Rifabulin  Anti-leprosy drug  — ATT drugs	ic.
1 (9) Uveitiz — Rifabulun	
Anti-leprosy drug.  - ATT drugs → Rifampicin  Ethionamide.	
- ATT drugs → Rifampicin  Ethionamide	
Ethionamide.	
Dillow division and the same	
Other drug → Clofaziunie Dapsone	
Dapsone.	
Antibiotic useful for lepson - Afteración	
Minocyelin	
Antibiotic useful for leproxy — Ofloxacin  Minocyclin  Clarithromycin	
Dapsone – Sulphonamide	
Dapsone — Sulphonamide  Uses of Dapsone —  DOC for dermatilis herpatiformis.  # Inj. Acadapsione (i.m.) one dose acting for 8 months.	
Doc for dermatilis herpatiformis.	
# Inj. Acadapsione (i.m) one close acting for 8 months.	
S/E - Allergy (M/c)  Hemolylië Anemia.	
Transigue Aprentis.	
Clofaziania -	
Clofazinire - Bacteriostatic	
-Anti inflammatory property.	
also useful for lepra reach.	
YE - Reddish black skin discolouration  Dermatological.	
Desmatological.	

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	Date: / /
Lepra Reac ⁿ :  Type I – Cell mediated immunity i	
Type I - Cell mediated immunity i	ō M. leprae.
<i>()'</i>	
Type IV hypersensitority.	Ö
<i>('' (' ('</i>	
70c - Prednisolone (Steroid)	).
Type 2 - Immune complex depos	sction.
Type 2 - Immune complex depos Type III Hypersersition	ity.
T/t - Steroids	
Clofazinine	6
Chloroquine	•
U	<b>Ö</b>
Virology.	È
0()	***
Drugs æseful for HIV:	•
Jusion inhibitors:	•
Enturitide	ď
Enfuvirtide - Given SJc	4
SIE - Injection site reach	
SJE - Injection site reach Preumonia (Rare)	•
	. Č
CCR-5 inhibitor:	Ö
	roved
Moraviroc - FDA appr Aplaviroc j underfrai Vicriviroc	o) .
Vicriviroc	
<b>7</b>	0
	20
	<b>9</b>

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	NRTi's (Nucleoside Reverse Transcriptase inhibitor):
•	Zidovuduie (M/c)
	4 Myelosuppressant (Macrocylic Amenia)
	Lipodirophy -> due to micto chondrial DNA polyanerane
	Didanosine
	4 Pancreatilis
	Stavudine - Wostdrug.
	$\hookrightarrow$ S/E - Severe Neuropathy
<b>0</b>	Lactic acidosex
	Lipodye trophy
	Abacavir (Rule out HLA: 135701 allele, MI, Safe in RF)
8	Zalcitabine
•	also Lamivuden - Best drug (No serious adverse effect)
•	useful - Entricitabine
	. 1/ - 1/ 1
) (5)	for HBV [ Tenofovir - Causes G17 toxicity, Janconi's Syndrome).  Seally a neclotide inhibitor.
	NNRTI:
ð	1st generalion:
0	Efavirenz
<u>_</u>	N'evirapine, NVP
	N'evirapine, NVP D'elavirdine.
9	And gen: Etravirine Rilpiviruie
<b>6</b>	Etravirine
3	Rilpivirine.
	Common SE - Skin Rash
	- Steven zhonson Syndrome - Toxic epidermal necrolyir
0	- Toxic epidermal neerolyix.
_6_	

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Nevirapine	
Nevirapine  L> S/E - Hepatites (LF7)  Flavirenz	
Efavirenz	<u> </u>
Efavirenz Los E - Neuropsychosis	<b>6</b>
Intégrase inhébitos:	
Raltegravir 7	
Elvitegravir Best drug.	•
Ralfegravir 7 Elvitegravir Best drug. Dolutegravir	<b>6</b>
J	<b>A</b>
Professe inhibitor:	
Saquinavir - Best tolerated	
Indinavir - Nephrolithiasis	•
Nollie aux M	•
Ritonavir - Powerful microsomal enzyme inhibitor (CYP3A4)	<u> </u>
J. (CYP3A4)	
Called Boosfer	-
	Ö
Amprenavis Cor ambrea arist	<b>*</b>
Fos amprenavir	-
Afazanavir -> Notcause lipodystrophy.  Lopinavir.	
Lopinavir.	<b>Ö</b>
may cause infractantal humar hage.	- A
Sulfonamide	
Narunavir/	43
Common Ste - Hyperglycemia	-6
7at redistribution	-78-
Common Ge – Hyperglycemia  Fat redestribution:  Hyperlipidemia:	
0' '	
	•

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TESAMORELIN - GHRF
→ Reduce abdominal fat in HIV & lipedystrophy.
ROPELEMER - CFTR inhibitor
NOFELEMER - CFTR inhibitor Use - HIV induced diarrhoes.
Maluralion unhibitor.
Maluralion unhibitorBevirimat (Under Trail)
,
HAART/CART (Highly active anti retrovisal therapy):  2NRTI + 1NNRTI   Jriple drug therapy  NRTI + NNRTI + PI   V
2NRTI + 1 NNRTI 7 Triple drug therapy
NRTI + NNRTI + PI
To prevent drug resustance.
NACO 2011 -> Zidovudine + Lamivudine + Nevirapine.
<u> </u>
CMV (Cyto megalo Virus) -> Cause Relinitis.
- Ganciclovir (DOC)
4 M/c 4E - Myelosuppression.
Valganciclovir
Jomevirsin
Foscarnet
cidofovir
Maribavir.
Fos carnet: -
Useful for HSV (resostant to Acyclovir)  CMV (Ganciclovir resistance)
CMV (Ganciclovir resistance)
ADR - ARF
Peni/e ulcer·

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	-
Cédofovir - Useful for Respr papillomatoris.	•
Drug Lor Harbar simbler Vines	
Drug for Herpes simplex Virus	
Acustonix - for HSV	
Acyclovir – For HSV  ADR – Kenal Failure	0
1,1	6
Docosanol - Viral entry inhibitor	<u></u>
Docosanol – Viral entry inhibitor given topically	
· · · · · · · · · · · · · · · · · · ·	-
Famciclovir-Prodrug  Aclive form-6-deoxy pencizlovir.	9
Active form - 6 - deoxy pencizlovir.	0
$\mathcal{O}$	9
Drug Useful for Hep. B:	6
Drug Useful for Hep B: Jujection are / IFN- a PEG-INF-d	-25
PEG-INF-d	
	9
Oral agents:	ä
1st line - Entecavir	<b>(5)</b>
Tenofovir (Anti HIV drug)	
· · · · · · · · · · · · · · · · · · ·	
2 nd luie - Lancivudure	
Adeforir Telbirudure	
Telbivadere.	
	-0
	•

Suive previr  Grazoprevir  Glasop Elbasvir		Posso No. 231
Drugs for HCV:  Commonly wegive PEGINFA plus ribaristin.  Sofosbavir — Given orally  Renal excellion  Causes Bradycardia  Other drugs —  Delaprevir  Bo ceprevir  Grazoprevir  Grazoprevir  Thease Elbasvir  Daclalasvir  Velpalasvir  Ledipasvir  Viramidine — (Under līail)		
Sofosbavir - Given orally Renal excretion  Causes Bradycardia  Other drugs -  Pelaprevir  Boceprevir  Grazoprevir  Grazoprevir  Uelpalasvir  Velpalasvir  Ledipasvir  Viramidine - (Under trail)	0	
Sofosbavir - Given orally Renal excretion  Causes Bradycardia  Other drugs -  Pelaprevir  Boceprevir  Grazoprevir  Grazoprevir  Uelpalasvir  Velpalasvir  Ledipasvir  Viramidine - (Under trail)	<u> </u>	Drugs for HCV:
Sofosbavir - Given orally Renal excretion  Causes Bradycardia  Other drugs -  Pelaprevir  Boceprevir  Grazoprevir  Grazoprevir  Uelpalasvir  Velpalasvir  Ledipasvir  Viramidine - (Under trail)		Commonly we give PEGINFA plus ribavirin.
Jelaprevir  Boceprevir  Sume previr  Grazoprevir  Ebocop Elbasvir  Daclatāsvir  Velpatāsvir  Dubitasvir  Ledipasvir  Viramidune — (Under līvil)		<i>γ γ</i>
Jelaprevir  Boceprevir  Sume previr  Grazoprevir  Ebocop Elbasvir  Daclatāsvir  Velpatāsvir  Dubitasvir  Ledipasvir  Viramidune — (Under līvil)	6	Sotosburir - Given orally
Jelaprevir  Boceprevir  Sume previr  Grazoprevir  Ebocop Elbasvir  Daclatāsvir  Velpatāsvir  Dubitasvir  Ledipasvir  Viramidune — (Under līvil)	-	Renal excretion
Jelaprevir  Boceprevir  Sume previr  Grazoprevir  Ebocop Elbasvir  Daclatāsvir  Velpatāsvir  Dubitasvir  Ledipasvir  Viramidune — (Under līvil)		Causes Bradycardia
Sune previr Grazoprevir Grazoprevir  Baclalasvir Velpalasvir  Dubitasvir  Ledipasvir Viramidine — (Under liail)		Olher drugs -
Sune previr Grazoprevir Grazoprevir  Baclalasvir Velpalasvir  Dubitasvir  Ledipasvir Viramidine — (Under liail)		Telaprevir
Suné previr Grazoprevir  Chasop Elbasvir  Daclalasvir  Velpalasvir  Dubitasvir  Legipasvir  Viramidine — (Under biail)	<u></u>	Boceprevir
Grazoprevir  Glican Elbasvir  Daclalāsvir  Velpalāsvir  Dubitasvir  Ledipasvir  Viramidine — (Under Irail)	- (2)	Sineprevir
Daclatāsvir  Velpatāsvir  Dinbitasvir  Ledipasvir  Viramidine — (Under trail)		
Daclalāsvir  Velþalāsvir  Dimbitasvir  Ledifasvir  Viramidine — (Under līail)		Edward Elbasvir
Velpalaovir  Dinbitasvir  Ledipasvir  Viramidine — (Under liail)	•	
Ledipasvir  Viramidine — (Under livil).	<b>6</b>	Daclalasvir
Ledipasvir  Viramidine — (Under livil).	<u>à</u>	Velpalasvir
Viramidine – (Under livil)	*	Ombitasvir
Viramidine – (Under livil)		
	<b>S</b>	Viramidine - (Under trail)
	0	
	6	
		•
	_0_	
		•
	<u> </u>	
		·
	_6_	

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Antifungal druge.	
- Membrane Aclive Antifungal Agents:	
	•
Squalene -> Lanosterol -> Ergosterol -> F	ungal 0
	Tell memb
Sequalere 14d-demethylase	
epoxidase cypo p450.	
10	6
Terbenafine Azoles	Õ
Polyene antibiofice -	
Ampholericin B + Ergosterol -> Forme a pore infung	pal cell
Act on fungal cell wall. Destroy fung	us 💆
Amphoteraein B:	<b>(5)</b>
Usually given as a slow iv infusion.	
Very well distributed all over body /	*
poorly distributed in CNS.	•
ADR - Infusion related reach ( Jever, chills)	ð
Nephrotonicity (Dose limiting tonicity	fu).
Hypokalemia	1
Hypomagnesima	
-Anemia	Ø.
Sei zure	٥
Prouvid Nephrophoxicity - Give Hydration.	
Jo avoid Nephrotoxicity - Give Hydration.	
•	
# Newer formulation: ABCD (Colloid dispersion)	
ABLC (Lipid complex)	<b>6</b>
	r) 🐧
Less systemic Liposomal AMB (For Kalacean toxicity.	7
	<b>6</b>

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· ·	
	Drug interaction — Be careful while using Amphoterica  B with other Nephrotoxic agents like—  Acuinoglycosides  Vancomycin  Cyclosporin.
	B with other Nephrofoxic agents like -
	Auinoglycosides
	Vancomycin
	Cyclosporin.
	- Specific Control of the Control of
	Azoles + Amphoteracin B: Mulitally anlagonist
	Inhibit Exacsterol No action F. Exacsterol.
_	Inhibit Ergosterol No aclian E Ergosterol.
	Terbinatine - Squalene eposidase enhibitor.
	5- Flucytosine - Antimetabolite acting on fungal nucle
	5 Aucytosine + Amphotericin B => Synergezur
	Graseofulvin -
	- acting by inhibiting microfusule
	Graseofulvin -  - acling by inhibiting microfubule  - Useful for Dermatophytosis  - Oxchomycosis  - Given orally
	Duschowyeosis.
	- Given orally.
	- Microsomal enzyme enducer
	2
	- Disulfiram like reac"
٨	lower Anti Lynnel - Echinocondine
<b>√</b> \	Vewer Antifungal - Echinocandins
	eg: Caspofungin
	Micafungur
	Anidulafungen
	MOA - Acting on B-1,3-glucan synthase whitever.
	Uses - Canduda & Aspergillosis.

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Nikkourgain - Inhibet chilin Synthesis
Nikkomycin – Inhibit Chilin Synthesis Useful for Candida & Aspergillosis.
Amoebiasis
Lunen Amorbiasis Iissue
- Diloxanide furoale
(Hafulance) Extraintestine Both infestiture
- Nitazoxanide & Extra intestina
· Use in hyptosporidiosis
- Quinodochlor -> Cause Subacule myelo optic neuropathy (SM
- Godo quinol
- Paromo mycin (oral) → i.v. for Kala-92ar Tetracyclines
- Tetracyclines
Extraintestine:
Extracifestine: Chloroquine
·
Both:
Metro uidazole
Ti'nidazole
Secnidazole (Single dose) - M/c GE - Nause, Vornitting Druidazole  [Metallic taste]
Drnidazole Metallic taste
s-atranidazole (less a neurological ADR)
Ementine
Dehudon engelie

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# Guinea Worm: 70	r complete removal of	worm
	r complete removal of DOC - Niridazole.	
Heli	uin théasis	
	·	
Trematodes	Cestades	Memafodes.
DOC - Praziquantel	DOC-Praziquantal	DOC-Albendazole
Except - Jasiola hepatica	Except - Echinococcus	Except - Ochocerca
	granulosa	Volvulus
Iri clobendazole	Neurocysticereoris	((I vermecta)
Bithional	✓ "	Strongyloidosis
	Albendagole (hepatotoxu	
	<i>O</i> ,	
		W.boneroffi 4DEC.
		·
Leu	shuaniasis	
Kala-gran  Forall for  State of the last o	Cufaneous N	lucoculations
Gorall for	rus Sodium e	
Ste	:boGluconate	
(DOC) Amphotericin B (In India	e) /	
(DOC) Amphotericin B (In India Hyperkalemia	) \	$\downarrow$
Paromonycin	Juconazole A	mphofericin B.
5 Miltetosine	Juconazole A Metrônidazole	. /
oral Sitamagnine		

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Trypnos	omiasis.
African South Americ	
- Sleeping sickness.	- Chagas de • T. cruzi
T. gambience	· T. cruzi
& T. rhodesience	Doc – Benznidazole
	Nituliënox.
Early heamoly mphatic stage	0
Early heamolymphatic stage Suranun (Doc)	
Pentamidine	
Late - CNS stage	
Malar soproi (DOC)	
Eflornithere.	
——————————————————————————————————————	
Anti-M	alpaial duear
Maloraquine (ANIa)	alarial drug
Chloroquine (M/c)  Very Carge a	thought the ad too-loop it.
Uses:	pparant Vd of 100-1000 c/kg.
R - Rheumaford Arth	
E - Extra-intestinal	
	upus eryth malosus)
L - Lepra reach	
I - Infectious monor	
P - Photogenic reac	,rv
M - Malaria	
G - Giardiasis.	
- Cate in Proman	CU.
- Safe in Pregnan	7

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S/E -> GI tonicity (Nausea & Vomitting)
S/E > GI tonicity (Nausea & Vomitting)  CNS (Bradycardia, HTN)  Chronic therapy cause Bull's eye maculopathy.  Liver damage.
Chronic therapy cause Bull's eye maculopathy.
Lives danage.
0
Mefloquine:
For the & prophylaxis of Malaria
Jor tft & prophylaxis of Malaria  Long half life  Single oral close  Sfe - Neuropsychosis.
Single oral dose
Ste - Neuropsychosis.
If combine & Halofen, Quinine - Risk of QT prolongation.
HALDFANTRINE, LUMEFANTRINE:
Absorbtion 1 É food. Halofantrine - more Cardiotoxic.
Halofantrine - more Cardiotoxic.
Lumefantrine + Artéwelher > ACT
# Primaquine
- Vivax curalive
9π G6PD deficiency → Cause hemolytic anemia.
C/I in pregnancy.
Artemisinen:
Artesunate 7 Fast acting drug
Artemether Short acting - Recursidensee more
Africa 1
for extending duration of action  combine & Methoguine.
Combine c Metloguene.

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Indication:
Multidrug resistance Malaria
Cerebral Malaria.
Multidrug resistance Malaria  Ceretral Malaria.  Not indicated for chemo prophylaxis of Malaria
S/E - GI toxicity (M/c)
CVS -> 97 prolongation, 1st degree AV block.
SfE - GI toxicity (M/c)  CVS → 97 prolongation, 1st degree AV block.  Hematology → Reversible Leucopenia.
WHO approved Combine therapies:
FDC = Arfemelher/lumefaulrine  Arfesunate + amodioquine ACT's  Arfesunate + SP  Arfesunate + Metloquine
Artesunate + amodioquine ACT's
Arfesurate + SP
Arfesunate + M efloquine
Unsafe Antinialarial drug en Pregnancy:
Unsafe Antinialarial drug en Pregnancy: Halofantrine
Tetracycline Donycycline
Tetracycline Donycycline Primagueire